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ABSTRACT

This 29th annual report summarizes results of the 1994-95 Survey of Earned Doctorates (SED), which collected data from graduates as they completed requirements for their doctoral degrees. The survey found that a record 41,610 doctorates were awarded by U.S. universities from July 1, 1994, through June 30, 1995. Over 88 percent of these were Ph.D.s, while more than two-thirds of the remainder were Ed.D.s or other doctorates in education. Women earned a record 16,333 doctorates, while U.S. minorities earned a record high of nearly 13 percent of doctorates awarded to U.S. citizens. The report also analyzes trends in doctorate production. Sixteen tables present data on number of doctorates awarded, gender and race/ethnicity of recipients, citizenship status, major fields, leading U.S. baccalaureate and doctoral institutions of minority recipients, levels of student debt, median years to doctorate, post-graduation commitments, and employment sector of recipients. A special section examines the contribution of China, India, Taiwan, and Korea to the growth of doctorates awarded to non-U.S. citizens between 1985 and 1995. Appendixes provide supplementary tables on 1995 doctoral recipients, trend data on 1985-95 doctoral cohorts, technical notes, and a copy of the survey questionnaire. (MDM)

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Summary Report 1995

Doctorate Recipients from United States Universities

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Highlights

The following data characterizing recipients of research doctorates awarded by U.S. universities from July 1, 1994, through June 30, 1995, are derived from the 1995 Survey of Earned Doctorates, an annual census of new doctorate recipients:

- The number of new Ph.D.s reached a record high of 41,610 in 1995: 7,913 in life sciences; 6,806 in physical sciences; 6,623 in social sciences; 6,546 in education; 6,007 in engineering; 5,061 in humanities; and 2,654 in professional/other fields.

- Women earned a record number of Ph.D.s (16,333 in 1995). Women outnumbered men in education and, for the first time, in social sciences. Doctorate awards to men surpassed those to women in every other broad field; women were most outnumbered in the field of engineering.

- U.S. minorities—Asians, blacks, Hispanics, and American Indians—earned a record high of almost 13 percent of doctorates awarded to U.S. citizens in 1995. Each U.S. minority group also reached its highest number and proportion of new Ph.D.s in 1995. Asians and blacks experienced large increases over 1994—19.9 percent and 17.5 percent, respectively. Fields with the largest percentage of minorities were education, in which blacks were the predominant minority group, and engineering, in which Asians were.

- In 1995, median time-to-degree for Ph.D. recipients was 10.9 years since the baccalaureate and 7.2 years since first enrollment in any graduate program. University funding was the primary source of support for the majority of 1995 Ph.D.s. Almost half of Ph.D.s reported debt related to undergraduate and graduate education.

- A smaller proportion of Ph.D.s in 1995 than before reported definite postgraduation commitments. Of those with definite commitments, a smaller proportion of Ph.D.s planned to be employed and a larger proportion planned postdoctoral study than previously. Continuing a trend that began in 1992, women outnumbered men in 1995 among those Ph.D.s with definite commitments at the time the doctorate is earned for employment in academia.

- U.S. citizens accounted for the entire increase in doctorate awards from 1994 to 1995. The number of U.S. citizens earning Ph.D.s increased by 474. The number of non-U.S. citizens decreased by 41, their first decline in numbers since the mid-1970s.

- Between 1985 and 1995, non-U.S. citizens earning Ph.D.s doubled in number, accounting for almost two-thirds of the growth in doctorates during that period. Despite the small decline in number from 1994 to 1995, non-U.S. citizens comprised 32 percent of Ph.D.s in 1995, with almost 60 percent in engineering and 45 percent in physical sciences.

- Increases in Ph.D.s awarded to citizens of the four leading non-U.S. countries of citizenship—China, India, Taiwan, and Korea—spurred recent growth among non-U.S. Ph.D.s. In 1985 these countries accounted for 29 percent of non-U.S. Ph.D.s; in 1995 they accounted for 55 percent. A special section in this report, though, reveals important differences among citizens of these four countries in number of Ph.D.s, fields of study, financial support, visa status, postgraduation commitments for work or further study, and postgraduation location.

Summary Report 1995

Doctorate Recipients from United States Universities

The Survey of Earned Doctorates is conducted
for the following agencies of the U.S. government:

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NOTICE: The project that is the subject of this report was approved by the Governing Board of the National Research Council, whose members are drawn from the councils of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine. The survey project is part of the program of the Office of Scientific and Engineering Personnel (OSEP).

This report has been reviewed by a group of persons other than the authors according to procedures approved by a Report Review Committee consisting of members of the National Academy of Sciences, the National Academy of Engineering, and the Institute of Medicine.

The National Academy of Sciences is a private, nonprofit, self-perpetuating society of distinguished scholars engaged in scientific and engineering research, dedicated to the furtherance of science and technology and to their use for the general welfare. Under authority of the charter granted by Congress in 1863, the Academy has a mandate that requires it to advise the federal government on scientific and technical matters. Dr. Bruce M. Alberts is president of the National Academy of Sciences.

The National Academy of Engineering was established in 1964, under the charter of the National Academy of Sciences, as a parallel organization of outstanding engineers. It is autonomous in its administration and in the selection of its members, sharing with the National Academy of Sciences the responsibility for advising the federal government. The National Academy of Engineering sponsors engineering programs aimed at meeting national needs, encourages education and research, and recognizes the superior achievements of engineers. Dr. William A. Wulf is interim president of the National Academy of Engineering.

The Institute of Medicine was established in 1970 by the National Academy of Sciences to secure the services of eminent members of appropriate professions in the examination of policy matters pertaining to the health of the public. The Institute acts under the responsibility given to the National Academy of Sciences by its congressional charter to be an adviser to the federal government and, upon its own initiative, to identify issues of medical care, areas of research, and topics for education. Dr. Kenneth I. Shine is president of the Institute of Medicine.

The National Research Council (NRC) was organized by the National Academy of Sciences in 1916 to associate the broad community of science and technology with the Academy's purposes of furthering knowledge and of advising the federal government. Functioning in accordance with general policies determined by the Academy, the Council has become the principal operating agency of both the National Academy of Sciences and the National Academy of Engineering in providing services to the government, the public, and the scientific and engineering communities. The Council is administered jointly by both Academies and the Institute of Medicine. Dr. Bruce M. Alberts and Dr. William A. Wulf are chairman and interim vice-chairman, respectively, of the National Research Council.

This report is based on research conducted by OSEP with the support of the National Science Foundation (NSF), the National Institutes of Health (NIH), the National Endowment for the Humanities (NEH), the U.S. Department of Education (U.S. Dept. of Ed.), and the U.S. Department of Agriculture (USDA) under NSF Contract No. SRS-9309720. Opinions, findings, conclusions, or recommendations expressed in this publication are those of OSEP and do not necessarily reflect the views of the sponsoring agencies.

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PREFACE AND ACKNOWLEDGMENTS

This report presents a summary of the results of the 1994-1995 Survey of Earned Doctorates (SED), which has been conducted each year since 1958 by the National Research Council's (NRC) Office of Scientific and Engineering Personnel (OSEP) and its predecessor organizations. Questionnaires distributed with the cooperation of the graduate deans of U.S. universities are filled in by graduates as they complete requirements for their doctoral degrees. The doctorates are reported by academic year (from July 1 of one year through June 30 of the following year) and include *research* and *applied-research doctorates* in all fields.[1] Doctoral degrees such as the Ph.D., D.Sc., and Ed.D. are covered by this survey; professional degrees (e.g., M.D., D.D.S., J.D., Psy.D.) are not. A full list of included degrees can be found inside the back cover. For convenience throughout this report, "Ph.D." is used to represent any of the doctoral degrees covered by the survey.

This *Summary Report* is the twenty-ninth in an annual series of reports that began in 1967.[2] All survey responses become part of the Doctorate Records File (DRF), a virtually complete database on doctorate recipients from 1920 to 1995. Almost 90 percent of the 1,185,855 records now in the DRF were created from results of the 1958-1995 surveys. For doctorates granted during the 1920-1957 period, information was compiled from commencement bulletins, registrars' records, and other published material.

The conduct of the SED, the maintenance of the resulting data file, and the publication of this report are funded jointly by the National Science Foundation (NSF), the National Institutes of Health (NIH), the National Endowment for the Humanities (NEH), the U.S. Department of Education (U.S. Dept. of Ed.), and the U.S. Department of Agriculture (USDA). The survey's relevance to national policy issues has increased, thanks to constructive reviews of the design and analysis of the survey by Paul Seder (NIH), Nancy Schantz (U.S. Dept. of Ed.), Peter Muscato (USDA), Jeffrey Thomas (NEH), and Mary Golladay and Susan Hill (NSF). Mary Golladay (NSF) also serves as the project officer for the five sponsoring agencies.

We would also like to acknowledge the graduate deans and their assistants in the doctorate-granting institutions for their interest and assistance. It is through their cooperation that the DRF continues to serve as a useful resource for monitoring developments in graduate

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[1] The Survey of Earned Doctorates collects information on *research* doctorates only. This differs from the institutional collection of numbers of degrees done by the U.S. Department of Education on *all* doctorates. For an evaluation of the differences, see National Science Foundation, 1993, *Science and Engineering Doctorates 1960-1991*, NSF 93-301, Detailed Statistical Tables, Washington, D.C, Pp. 2-6.

[2] Trend data from earlier periods can be found in Lindsey R. Harmon, 1978, *A Century of Doctorates: Data Analysis of Growth and Change*, National Academy of Sciences, Washington, D.C.

education in the United States. Finally, we thank all of the doctorate recipients who have completed the SED over the years.

The 1994-1995 Survey of Earned Doctorates was conducted under the administrative supervision of Peter Henderson and Robert Simmons. Delores Thurgood supervised and reviewed survey closure. Dr. Henderson collaborated with Julie Clarke and Mary Reynolds on the development of this year's report. Dr. Henderson analyzed the survey results and drafted all text in the body of the report. He and Ms. Clarke produced the figures. Ms. Clarke and Dr. Reynolds generated the data from the Doctorate Records File. Ms. Clarke, Dr. Reynolds, and Martha Bohman prepared the final tables for the report. Ms. Clarke drafted the technical notes. Dr. Reynolds, Ms. Clarke, and Ms. Bohman reviewed the manuscript for accuracy.

Special appreciation is also expressed to the following NRC staff: Eileen Milner, manager of the unit responsible for collecting and processing the survey forms; John Hines, institutional coordinator; Gedamu Abraha and Kevin Kocur, coordinators of the follow-up effort; Joyce Hendrickson, Kevin Williams, Amy Dowd, and Barbara Schreiber, full-time coders; and the many hourly coders who contributed to processing the survey. Special thanks are also expressed to Joseph Finan, Cynthia Woods, and Daniel Fulwiler for their service on application development, project programming, database management, and computer operations.

The work of this project was overseen by the Advisory Committee of the Office of Scientific and Engineering Personnel, which is concerned with those activities of the NRC that contribute to effective development and utilization of the nation's scholars and research personnel. In addition, an advisory panel made recommendations on the improvement of this important survey. Charlotte Kuh, Executive Director of OSEP, and Marilyn Baker, Associate Executive Director, also provided helpful guidance. Suggestions for improvement of the content or format of the report, other comments, and questions are welcome and may be directed to the authors of this report.

Linda Wilson, Chair
Office of Scientific and Engineering Personnel
Advisory Committee

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INTRODUCTION

Summary Report 1995 is the twenty-ninth in a series of reports on research doctorates awarded by U.S. colleges and universities. Like its predecessors, this report presents trends in doctorate production in the United States, describing the general demographic characteristics of doctorate recipients and the seven broad fields in which they earned their degrees. Each of the seven broad fields consists of several "major" fields (e.g., biological sciences is a major field within the broad field of life sciences, psychology is a major field within the broad field of social sciences). The doctorate recipients themselves report their field of study and are counted accordingly. For a list of the fields discussed in this report, see the inside back cover and the specialties list in Appendix D. (Note: These field groupings may differ from those used by federal sponsors of the survey.)

The first section of *Summary Report 1995* presents brief narratives of key survey findings, accompanied by figures showing selected trend data. The numbers and percentages from which the figures were drawn are provided in a set of tables following the first section; relevant tables are referenced at the bottom of the figures. This section also includes major findings from data presented in tables but not in figures.

Although the main body of the report is similar in content to last year's, *Summary Report 1995* presents a special section on non-U.S. citizens that focuses on the contribution of leading non-U.S. countries of origin—China, India, Taiwan, and Korea—to what, until this year, has been a growing population of non-U.S. citizens earning doctorates from U.S. colleges and universities.

Supplementary tables on 1995 doctorate recipients are given in Appendix A, and trend data on the 1985-1995 Ph.D. cohorts are presented in Appendix B. Appendix C provides technical notes that include nonresponse rates and other information related to tables and figures in the body of the report. Appendix D contains a copy of the survey questionnaire.

Additional information is available from the Doctorate Records Project upon request. For a cost, the project offers tables on the baccalaureate origins of Ph.D.s by major field of doctorate and tables on the doctoral specialties of Ph.D.s by citizenship, race/ethnicity, and gender. Customized tables can also be prepared at cost. For more information, please contact:

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*** IMPORTANT NOTICE ***

The estimates reported for the Survey of Earned Doctorates (SED) are simple tabulations of all available information with no adjustment for nonresponse. Therefore, differences in response rates from year to year can produce numerical fluctuations that are unrelated to real trends.

Historically, self-report rates to the SED have been at or above 95 percent in most years. The self-report rate declined to 92 percent during the 1980s, and, in an effort to improve it, the survey methodology was modified after 1989. Self-report rates have risen as hoped, stabilizing around 95 percent during the past four years (1991 to 1995). (*Self-report rates* indicate the proportion of questionnaires completed by doctorate recipients. The National Research Council obtains at least skeletal data on all research doctorates who do not complete the survey. These doctorates are not included in the self-report rates, but tables in this report incorporate data for the skeletal cases.) The self-report rate for 1995 may increase slightly next year if additional questionnaires are received from doctorate recipients. See page 137 in Appendix C for a table giving survey response rates from 1965 to 1995.

Item response rates have shown a parallel improvement since 1990—a natural consequence of the increase in the overall self-report rate, as well as a result of format revisions to the questionnaire and follow-ups for missing information. In 1990 new follow-up procedures were implemented to increase coverage of several variables: birth year, gender, race/ethnicity, citizenship status, country of citizenship, baccalaureate year and institution, and postgraduation plans. Response rates for these variables have since improved—especially for citizenship and race/ethnicity. The increased response rate to race/ethnicity has assured accuracy in the reported numbers of minority Ph.D.s.

The data for a given year are updated the following year with any responses received *after* survey closure. Postsurvey adjustment was most significant for 1990 and 1991 Ph.D.s, with the largest impact on the number of blacks. For both of these years, the total number of black Ph.D.s increased by about 7.5 percent in the year after survey closure. The survey cycle was then extended to allow receipt of more follow-up information before closure, resulting in much smaller postsurvey adjustments for 1992, 1993, and 1994 data (a 1.4 percent increase in black Ph.D.s for 1992, a 0.2 percent increase for 1993, and a 0.5 percent increase for 1994). The same is expected for 1995 data.

Adjustments to data are presented in reports subsequent to the initial report for a survey. Updates for 1993 appeared in *Summary Report 1994*, and those for 1994 are included in this year's report (see Appendix Table B-2 for adjustments to racial/ethnic data). The data for 1995 will likewise be subject to further revision, but, as for the last two years, adjustments are expected to be minimal. Updates to 1995 data will be presented in next year's report.

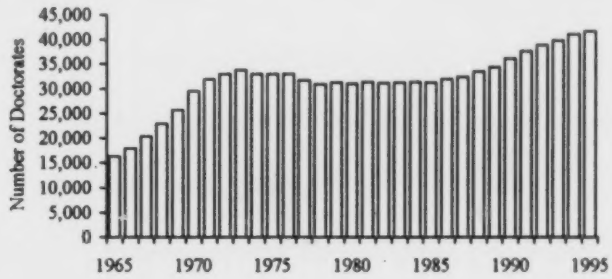
In using SED data the reader should keep in mind that numerical trends are affected by fluctuations in response rates. Increasing or decreasing numbers—especially in a citizenship or racial/ethnic group—reflect to some degree any change in both overall survey response and item response.

TRENDS IN DOCTORATE RECIPIENTS

Overall Increase in Doctorates

The number of new Ph.D.s granted by the 376 colleges and universities in the United States and Puerto Rico that award research doctorates increased to an all-time high of 41,610 in 1995.[1] This record continues the upward trend in doctoral attainment that started in 1986 after a period of stagnation during the late 1970s and early 1980s.

FIGURE 1 Doctorates awarded by U.S. colleges and universities, 1965-1995.



See Table 1, page 22.

SOURCE: National Research Council, Survey of Earned Doctorates.

This first part of the *Summary Report* on trends in doctorate recipients examines the trends behind this overall increase. The first three sections that follow focus on trends by gender, race/ethnicity (for U.S. citizens), and broad field. The section examining broad fields has subsections on gender and race/ethnicity. The first three sections are followed by sections examining time-to-degree, financial support during graduate school, postgraduation plans of doctorate recipients, and sectors of employment for doctorates who have definite employment commitments at the time the doctorate is earned.

This year data on citizenship status is presented in a second part of the report focusing on the contribution of China, India, Taiwan, and Korea to the growth of non-U.S. Ph.D.s. Non-U.S. citizens account for much of the growth in the numbers of Ph.D.s in the past decade, and the growing number of Ph.D.s who are citizens of these four Asian countries account for most of the growth among non-U.S. Ph.D.s. The second part of the report examines the trends behind these increases. It also notes, however, that the number of non-U.S. Ph.D.s declined between 1994 and 1995 and suggests this may be the beginning of a new trend.

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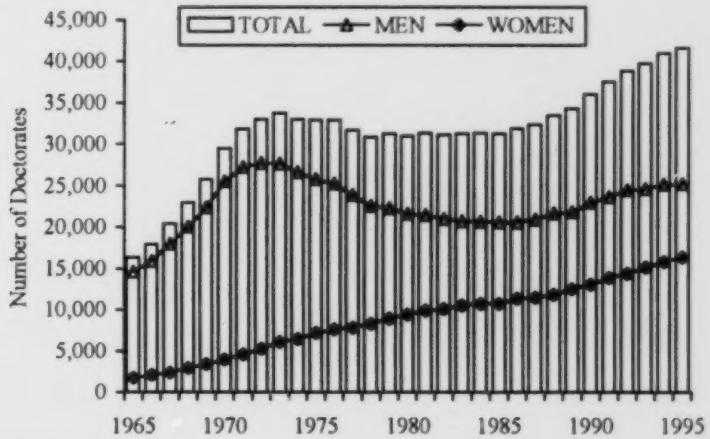
[1] "Ph.D." is used in this report to refer to the Doctor of Philosophy degree—and recipients of this degree—and to any of the other doctoral degrees covered by the survey. Over 88 percent of the degrees earned in 1995 were the Doctor of Philosophy. More than two-thirds of the remaining degrees were Ed.D.s or other doctorates in education. A full list of included degrees can be found inside the back cover.

Gender

- In 1995 women once again earned a record number of Ph.D.s (16,333). This figure is nearly 10 times the number reported in 1965, when women earned 1,760 Ph.D.s. Women's representation among doctorate recipients jumped from 11 percent in 1965 to an all-time high of 39 percent in 1995.

- The number of men earning Ph.D.s increased to 25,277 in 1995. This figure is still short of the peak of 27,754 in 1972, after nearly doubling their numbers from the 14,580 earned in 1965.

FIGURE 2 Doctorate recipients, total and by gender, 1965-1995.



See Tables 1 and 2, page 22.

SOURCE: National Research Council, Survey of Earned Doctorates.

Race/Ethnicity

U.S. minorities earned a record number of Ph.D.s in 1995, increasing from 3,070 awards in 1994 to 3,489 in 1995. Almost 13 percent of the doctorates awarded to U.S. citizens in 1995 were earned by racial/ethnic minorities—Asians, blacks, Hispanics, and American Indians—up from 11 percent in 1994.[2] The overall minority share of doctorates has increased by over six percentage points since 1976. (See Appendix Table B-2, pages 133-135.)

Among U.S. citizens, all four racial/ethnic minority groups also reached record numbers in 1995. Additional trends for these racial/ethnic minority groups were as follows for U.S. citizens:

- The number of blacks receiving doctorates increased by 17.5 percent since last year, from 1,095 in 1994 to 1,287 in 1995. As a result, blacks increased their proportion among U.S. citizens receiving doctorates from 4.1 percent in 1994 to 4.7 percent in 1995, topping the previous high of 4.4 percent in 1977.

- Of the 20 institutions awarding the most baccalaureates to blacks who later received Ph.D.s between 1991 and 1995, 15 are Historically Black Colleges and Universities (HBCUs). (See Table 4, page 24.) Two HBCUs are also among the 20 institutions awarding the most Ph.D.s to blacks in 1995. (See Table 5, page 25.)

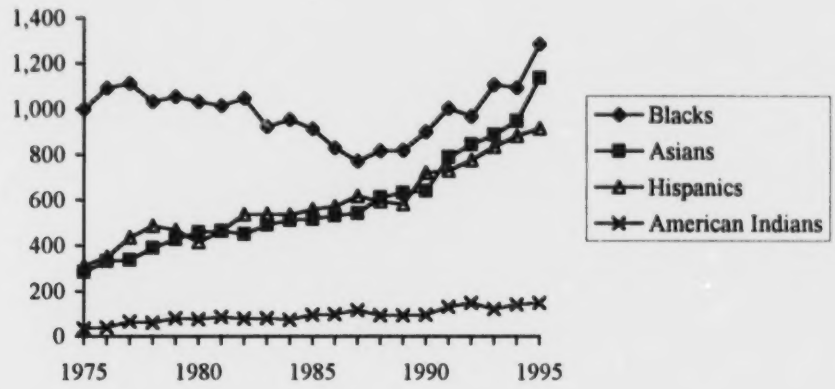
- The number of Asians receiving doctorates increased by 19.9 percent over last year, from 949 in 1994 to 1,138 in 1995. Asians increased their percentage of all U.S doctorate recipients from 3.5 percent in 1994 to 4.2 percent in 1995. They have more than tripled their proportion among U.S. doctorates since 1976.

- Hispanics, too, increased their numbers among U.S. citizens receiving doctorates, from 884 in 1994 to 916 in 1995. Their share of U.S. citizen doctorates remained largely unchanged since 1994, but it has almost tripled since 1976.

- The number of American Indians receiving doctorates increased from 142 in 1994 to 148 in 1995. Though the numbers are still small, the proportion of U.S. citizens earning doctorates who are American Indians has increased even more sharply than for other minority groups since 1976 when they earned only 40.

[2] "Asians" includes Asians and Pacific Islanders; "American Indians" includes Alaskan Natives.

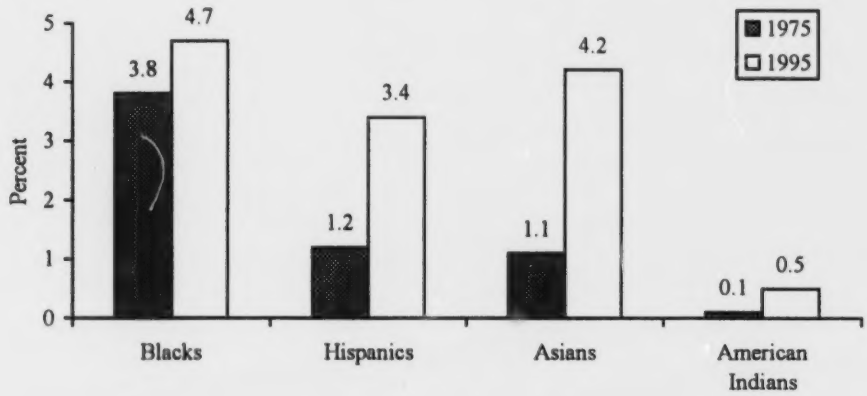
FIGURE 3 Minority Ph.D.s among U.S. citizens, by race/ethnicity, 1975-1995.



See Table 3, page 23.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 4 Percentage of doctorates earned by U.S. minorities, 1975 and 1995.



NOTE: Percentages are based on the number of U.S. citizen Ph.D.s with known race/ethnicity. The category of "American Indians" includes Alaskan Natives. The category "Asians" includes Pacific Islanders.

See Table 3, page 23.
See technical notes in Appendix C for rates of nonresponse to the survey questions on citizenship and race/ethnicity.

SOURCE: National Research Council, Survey of Earned Doctorates.

Field of Doctorate

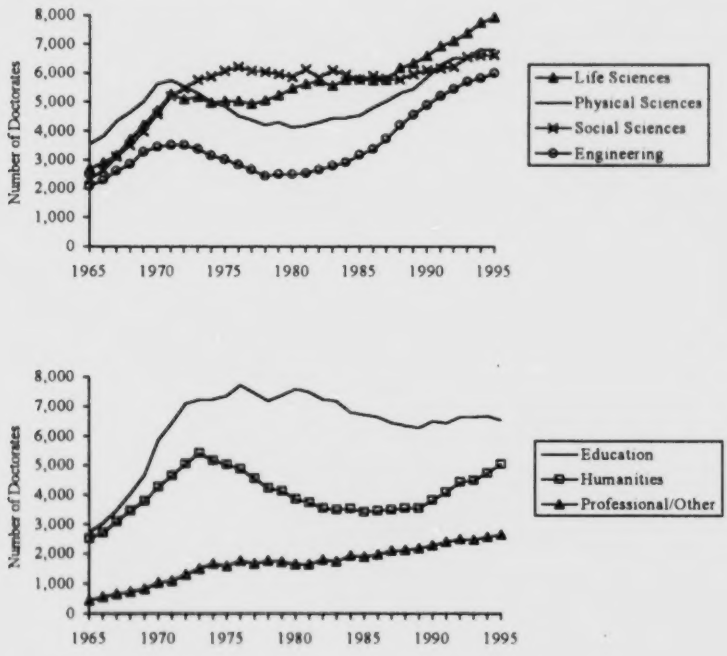
Of the seven broad fields profiled in this report, life sciences has the largest number of Ph.D.s, though engineering has had the fastest recent growth. (See Table 2, page 22.)

- All broad science and engineering fields reached new highs in 1995. Following life sciences (7,913 in 1995) were physical sciences (6,806 Ph.D.s), social sciences (6,623 Ph.D.s), and engineering (6,007 Ph.D.s).

- Among the nonscience fields in 1995, education produced 6,546 Ph.D.s, compared to 5,061 in humanities and 2,654 in professional/other fields. The number of doctorates in humanities reached its highest level since 1973. Professional/other fields was the only broad nonscience field to break its previous record number of doctorates (2,583 in 1994).

- The annual number of engineering doctorates grew the fastest over the past decade, by 89.7 percent. During that period, physical sciences grew at 50.2 percent, humanities at 47.6 percent, professional/other fields at 40.2 percent, life sciences at 36.9 percent, and social sciences at 14.9 percent. Education declined by 2.8 percent since 1985.

FIGURE 5 Field of doctorate, 1965-1995.



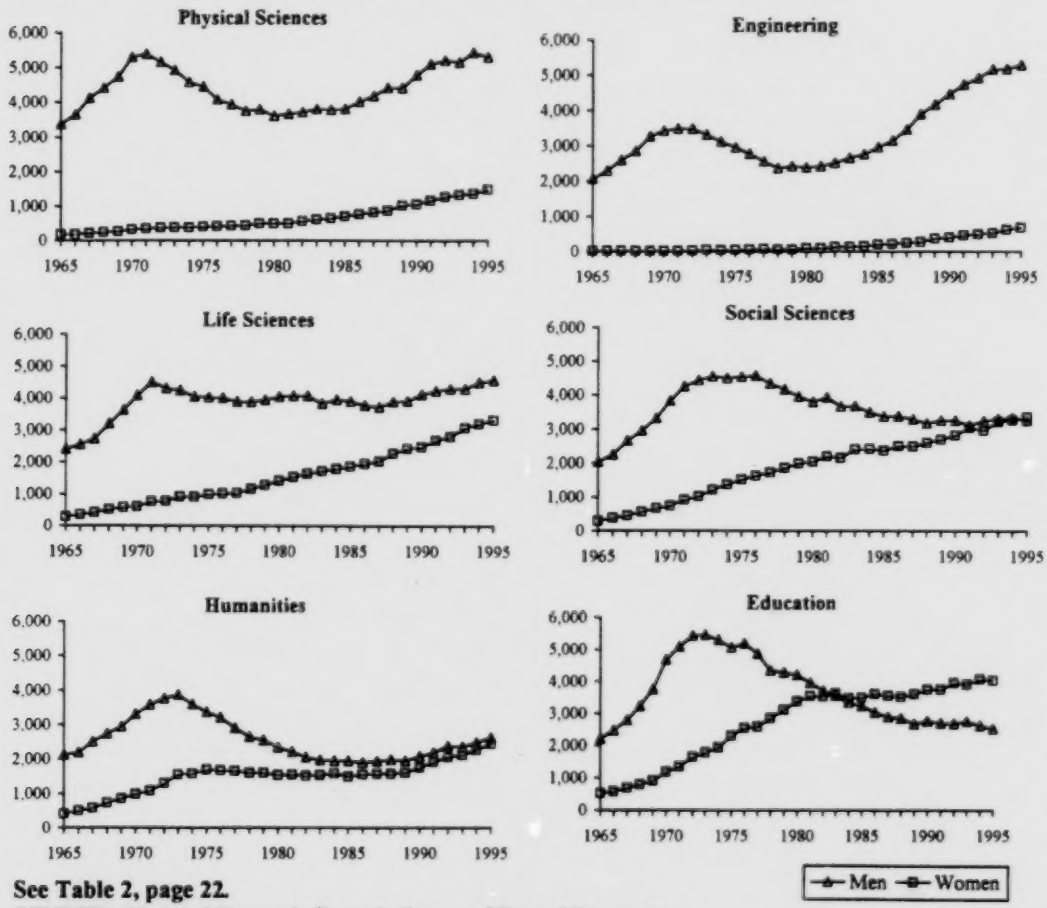
See Tables 2 (page 22), 6 (page 26), or 23 (page 73) and Appendix Table B-1, pages 129-131.

SOURCE: National Research Council, Survey of Earned Doctorates.

In 1995 the number of doctorates awarded to men surpassed those to women in five of seven broad fields. Women continued to earn the majority of doctorates in education, with 62 percent of all doctorates. For the first time, women also outnumbered men in social sciences (3,362 to 3,261). They were near parity in the humanities. Women remained substantially outnumbered in the fields of life sciences (42 percent of Ph.D.s), physical sciences (22 percent), and engineering (12 percent).

- Although the number of women Ph.D.s has increased in every broad field over the past 30 years, men have experienced major declines since the early 1970s in the social sciences, humanities, and education. The number of doctorates earned by men in the social sciences has stabilized in recent years, and their numbers in humanities have slowly risen. The decline of male doctorates in education has continued, though, decreasing again from 2,618 in 1994 to 2,514 in 1995. The number of education doctorates awarded to men in 1995 was about half the number in 1975.

FIGURE 6 Field of doctorate, by gender of doctorate recipients, 1965-1995.



See Table 2, page 22.

SOURCE: National Research Council, Survey of Earned Doctorates.

Racial and ethnic minorities received almost 13 percent of all doctorates awarded to U.S. citizens in 1995. As a group they accounted for more than 16 percent of doctorates in education and in engineering each. They accounted for 9 to 13 percent of Ph.D.s in each of the remaining broad fields.

- In 1995 blacks, Hispanics, and American Indians earned their largest numbers of doctorates in the field of education, followed by the social sciences. Life sciences and engineering were the leading fields among Asians.

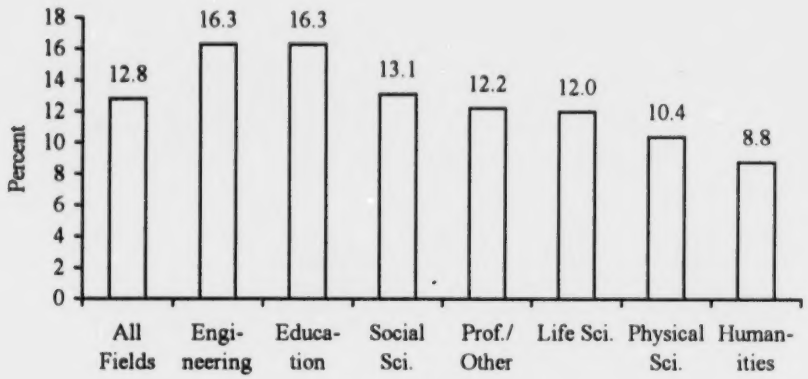
- Among blacks, 44 percent of all doctorates were in the field of education in 1995. Blacks received more than 10 percent of all Ph.D.s awarded to U.S. citizens in that field. The overall decline in the number of black Ph.D.s from the mid-1970s to the mid-1980s can be accounted for by the sharp drop in black Ph.D.s in education during that period. The subsequent increase over the past decade is partially accounted for by the rebound in black Ph.D.s in education but also by increases across all broad fields. The largest numerical increases in the past decade have been in education, life sciences, and social sciences. The largest percentage increases have been in engineering and life sciences.

- In 1995 almost two-thirds of doctorates earned by Asians were in the broad fields of life sciences, engineering, and physical sciences. Asians received 11 percent of Ph.D.s awarded to U.S. citizens in engineering, about 6 percent in physical sciences, and more than 5 percent in life sciences. Trends among Asians, though, have been driven by advances in almost every field. The numbers of Asians in social sciences and engineering have almost tripled in the past decade and more than doubled in each of the other fields except education.

- In 1995 almost half of the doctorates earned by Hispanics were in education or social sciences. Another 30 percent received their Ph.D.s in life sciences and humanities. The largest numerical increases among Hispanics in the past decade have been in social sciences and life sciences. The largest percentage increases, though, have been in engineering and physical sciences.

- American Indians also have had increases in every field except education. Their numbers in the past decade, though small, have increased 10-fold in engineering, tripled in physical sciences, more than doubled in humanities, doubled in professional fields, and increased by about half in life and social sciences.

FIGURE 7 Percentage of Ph.D.s awarded to U.S. minorities, by broad field, 1995.

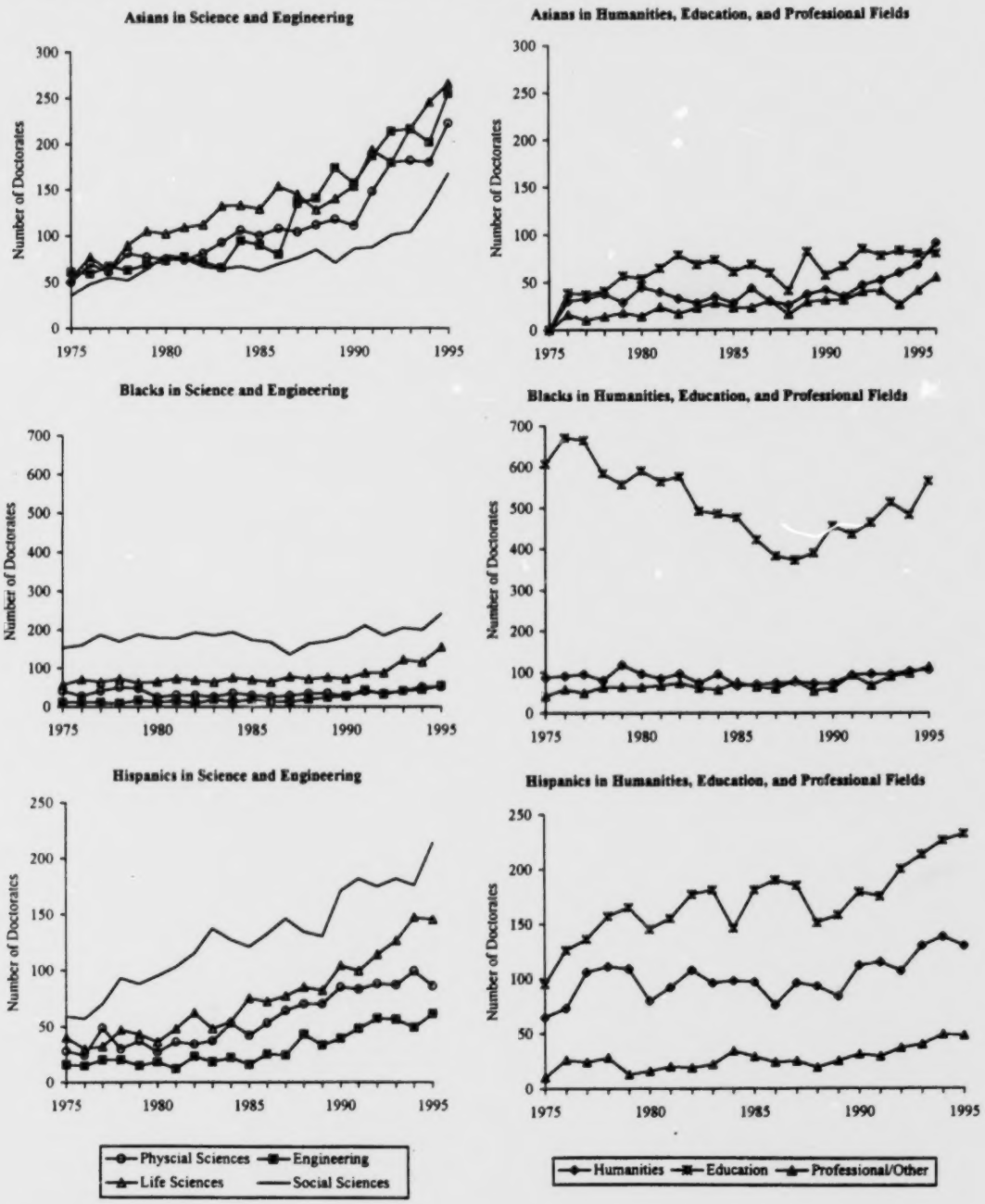


NOTE: Percentages are based on the total number of U.S. citizen Ph.D.s whose race/ethnicity is known. Minorities include Asian Americans, blacks, Hispanics, and American Indians.

See Table 7, page 27.
See technical notes in Appendix C for rates of nonresponse to survey questions on citizenship and race/ethnicity.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 8 Field of doctorate, by U.S. minority racial/ethnic group, 1975-1995.



See Table 3, page 23.

SOURCE: National Research Council, Survey of Earned Doctorates.

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Time to Degree

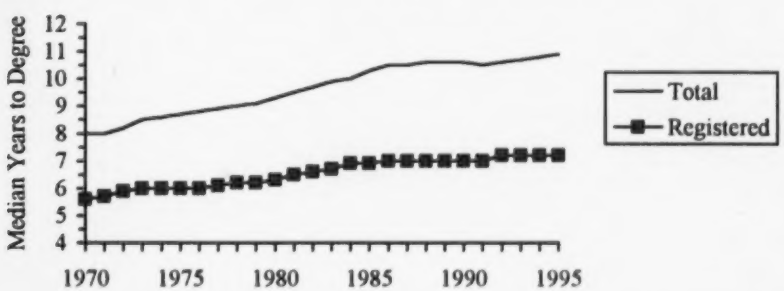
Total time to degree (TTD) measures the total number of years between receipt of the baccalaureate and receipt of the Ph.D. Registered time to degree (RTD) gauges the amount of time a person was enrolled in educational programs between receipt of the baccalaureate and receipt of the Ph.D. RTD includes work on master's degrees, enrollment in nondegree programs, and time spent working on the doctorate, including the dissertation. RTD does not count time off during this period. Neither TTD nor RTD distinguishes between full- and part-time enrollment.

- Median TTD has increased steadily since 1991, from 10.5 to 10.9 years, nearly three years longer than the median for 1970 graduates (8.0 years). Median RTD has been stable at 7.2 years since 1992, after growing to that level from 5.6 years in 1970. (See Table 8, page 28.)

- Both TTD and RTD varied considerably by field. In 1995 doctorate recipients in education had the longest median TTD (19.9 years), while those in physical sciences had the shortest median TTD (8.4 years). The longest median RTD was in the humanities (8.4 years), and the shortest median RTD was in engineering (6.4 years).

- Time to degree was longer for women than for men, but the difference was often minimal within the same broad field. (See Table 9, page 29.) Blacks had the longest time to degree of all U.S. racial/ethnic groups, largely because their highest percentage of degrees was in the field of education. Both permanent residents and U.S. citizens exhibited longer time-to-degree rates than did temporary residents.

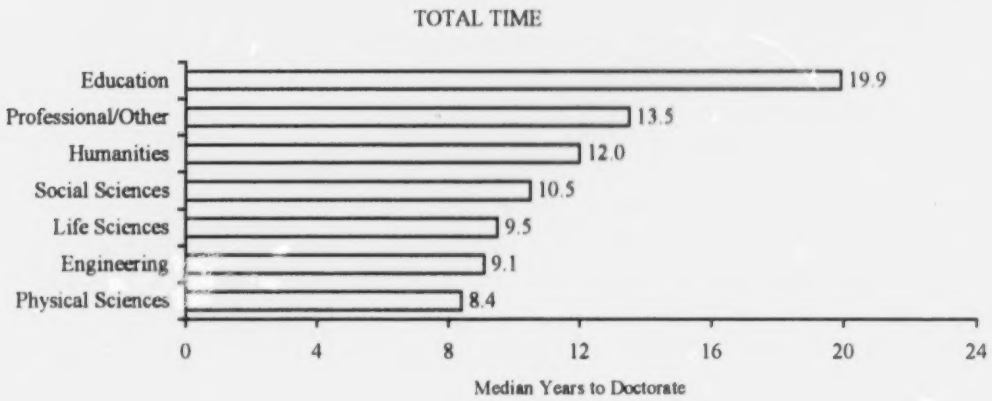
FIGURE 9 Median years to doctorate from baccalaureate award, 1970-1995.

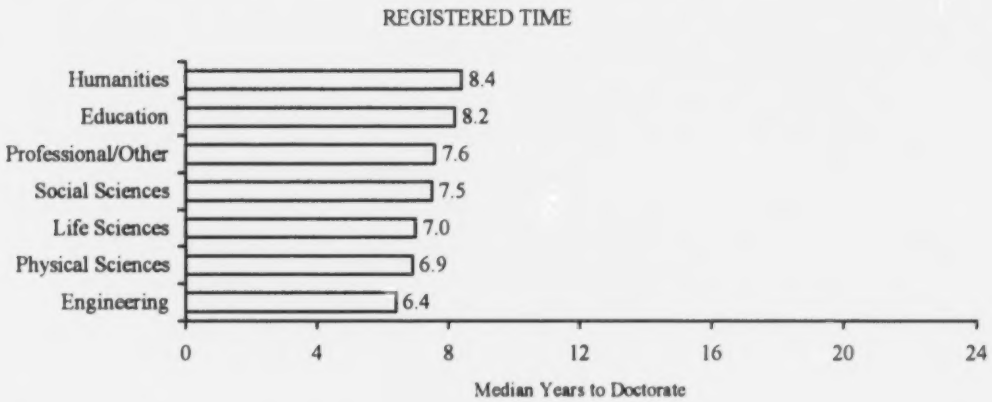


NOTE: The method of median computation has been revised since 1994. See technical notes in Appendix C for explanation of the revision (page 144) and for rates of nonresponse to applicable survey questions (pages 140-141).

See Tables 8 and 9, pages 28 and 29.
SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 10 Median years to doctorate from baccalaureate award, by broad field, 1995.





NOTE: The method of median computation has been revised since 1994. See technical notes in Appendix C for explanation of the revision (page 144) and for rates of nonresponse to the applicable survey questions (pages 140-141).

See Tables 8 and 9, pages 28 and 29.

SOURCE: National Research Council, Survey of Earned Doctorates.

Financial Support

As in the previous three years, university funding (mostly via teaching and research assistantships) was the primary source of graduate school support for the majority of 1995 Ph.D.s (53 percent). (See Table 10, page 30.) Another 36 percent of Ph.D.s were primarily supported by personal resources (their own earnings, family contributions, loans) and the remaining 11 percent by resources from federal or state governments, nonfederal competitive fellowships, businesses, and employers.

- The type of primary support varied greatly by field. University sources were most common in physical and life sciences and engineering (as reported by well over half of recipients). Personal resources were easily the most typical in education (as reported by 78 percent of recipients).

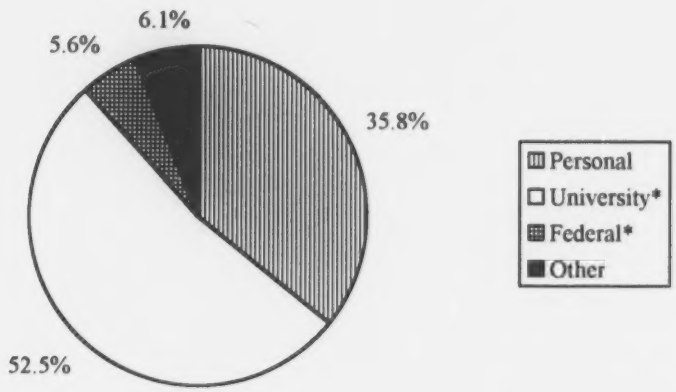
- Overall, a majority (58 percent) of male Ph.D. recipients cited university funding as their primary source of support. Of female Ph.D. recipients, roughly equal numbers relied on personal resources (46 percent) and university funding (44 percent).

- The differences between men and women largely disappear within fields, though several variations are noteworthy: a higher percentage of women than men in engineering cited federal funding as a primary source of financial support; higher percentages of men than women cited university support in life and social sciences.

- Among U.S. citizens, a majority of Asians cited university support as primary, while personal support was cited as primary among blacks, Hispanics, American Indians, and whites.

- Differences among demographic groups are partially accounted for by the distributions of these groups across broad fields. Within fields, differences of note include (1) high percentages of university support for Asians in physical sciences, engineering, and professional/other; (2) higher-than-average percentages of federal support for Asians in life sciences, for blacks in physical, life, and social sciences, and for Hispanics in sciences, engineering, and education; and (3) very high levels of "other" support for blacks, and to a lesser degree Hispanics, in the sciences, engineering, and humanities.

FIGURE 11a Primary sources of financial support for doctorate recipients, all fields, 1995.

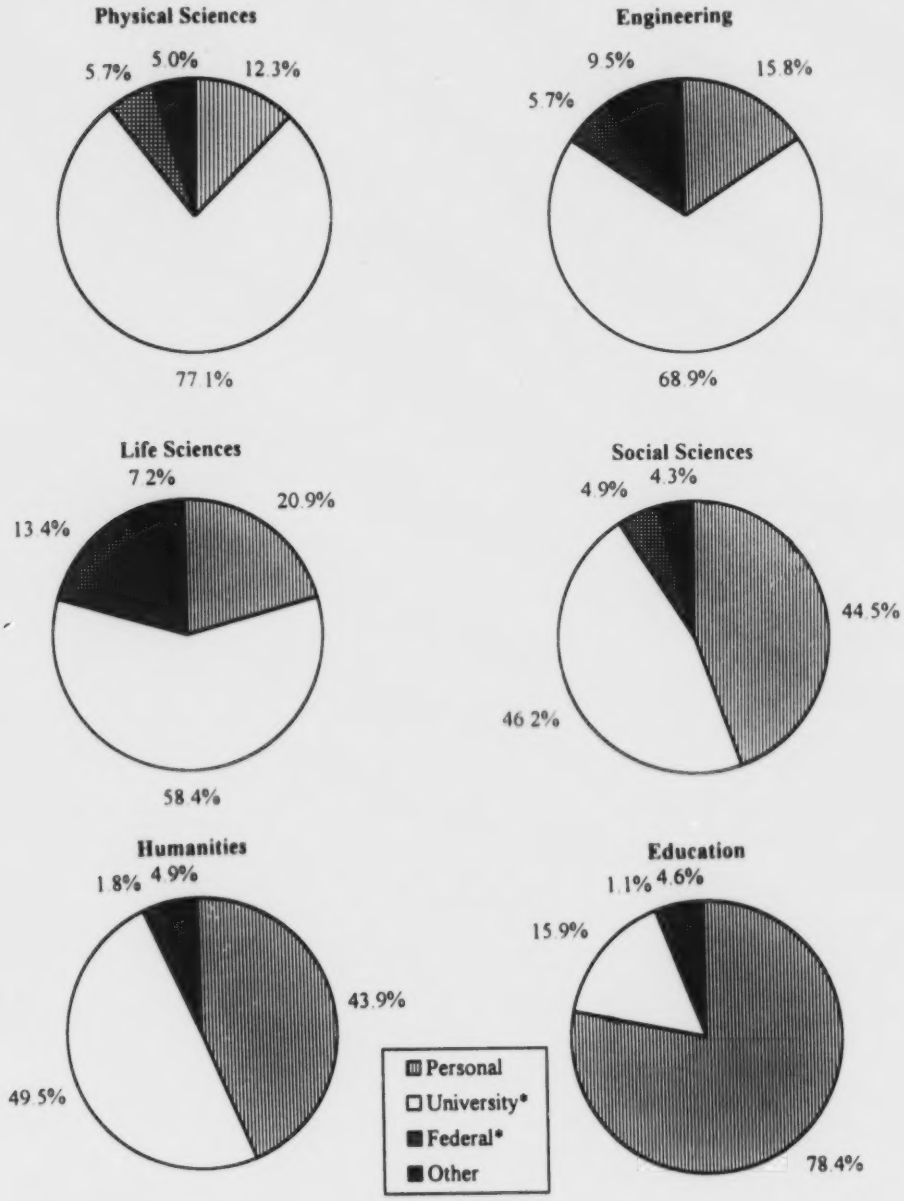


See Table 10, page 30.
See technical notes in Appendix C for rates of nonresponse to this survey question.

*Research assistantships funded by the federal government are counted as university support.

SOURCE. National Research Council, Survey of Earned Doctorates.

FIGURE 11b Primary sources of financial support for doctorate recipients, by broad field, 1995.



See Table 10, page 30.
See technical notes in Appendix C for rates of nonresponse to this survey question.

*Research assistantships funded by the federal government are counted as university support.

SOURCE: National Research Council, Survey of Earned Doctorates.

Almost half (47 percent) of all Ph.D.s in 1995 reported debt related to their combined undergraduate and graduate education. The majority of those with debt reported owing more than $10,000.

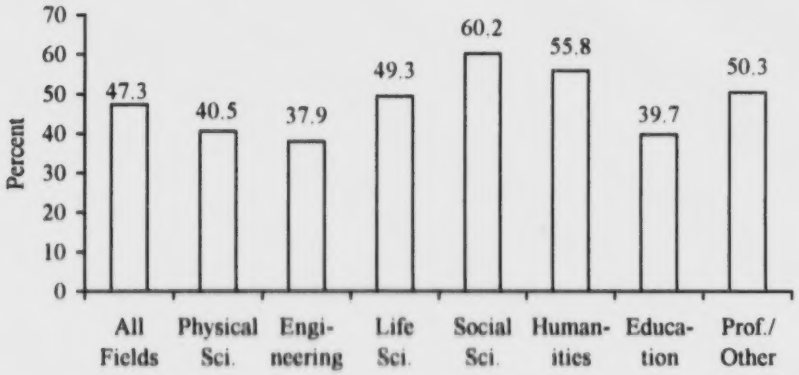
- Doctorate recipients in engineering were the least likely to have incurred educational debt (38 percent), while those in social sciences were the most likely (60 percent).

- Almost two-thirds of social science Ph.D.s with debt owed more than $10,000, and over one-fifth owed more than $30,000. By contrast, more than half of the indebted Ph.D.s in physical sciences and about half of those in life sciences and engineering owed $10,000 or less. (See Table 11, page 31.)

- Men and women reported debt in equal proportions and had similar distributions across levels of debt. Among U.S. citizens, Hispanics were the most likely of racial/ethnic groups to have educational debt and to report the highest level of debt. (See Table 12, page 31.)

- Non-U.S. citizens were much less likely to have incurred debt than U.S. citizens, the majority of whom were indebted. Temporary residents were more likely than permanent residents to report debt and to report a very high level of debt; this is surprising in that temporary residents rely less than permanent residents on personal sources of support, the category that includes loans.

FIGURE 12 Percentage of Ph.D.s with debt, total and by broad field, 1995.



See Table 11, page 31.
See technical notes in Appendix C for rates of nonresponse to the survey question on debt.

SOURCE: National Research Council, Survey of Earned Doctorates.

Postgraduation Plans

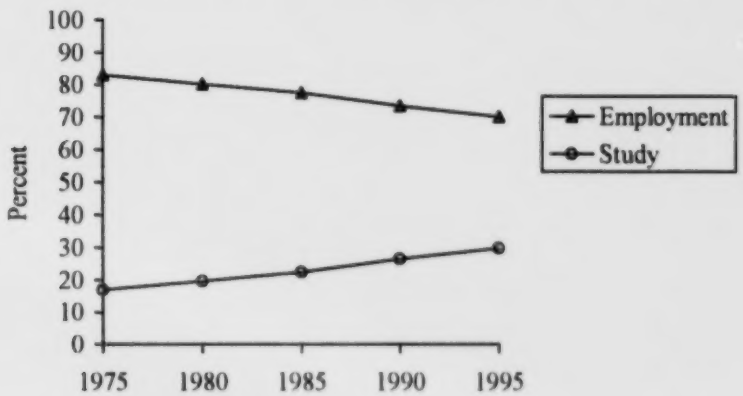
The proportion of Ph.D.s reporting definite postgraduation commitments at the time the doctorate is earned declined from about two-thirds in the 1970s and 1980s to about three-fifths in 1995. (See "Definite commitments," page 142.) Of those Ph.D.s in 1995 who did report having definite postgraduation commitments, 70 percent planned to be employed while 30 percent planned postdoctoral study. (Postdoctoral appointments are considered to be study rather than employment in this report.) The proportion of new Ph.D.s with postdoctoral study plans has steadily increased since 1975, when only 17 percent planned further study. (See Table 13, page 32.)

- Doctorate recipients in professional/other and education fields were the most likely to have work plans (97 and 96 percent, respectively), followed closely by humanities Ph.D.s (92 percent). Study plans were by far the most common in life sciences (65 percent).

- The majority of Ph.D.s in every major demographic group planned to work rather than pursue further study after graduation. However, women were even more inclined toward employment than were men.

- Among the aggregate of U.S. citizens and permanent residents, blacks had the largest proportion with work plans (about 83 percent), and Asians had the largest proportion with study plans (49 percent, up from 35 percent in 1990). (See Table 14, page 33.) These patterns are explained mainly—and for blacks and women, entirely—by the fields in which these different groups tend to earn degrees.

FIGURE 13 Postgraduation commitments of doctorate recipients for selected years, 1975-1995.



NOTE: Only Ph.D.s with definite commitments are included. Percentages are based on the number of Ph.D.s whose specific plans are known.
See Tables 13 and 14, pages 32 and 33.
See technical notes in Appendix C for rates of nonresponse to the applicable survey questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

Employment Sector

In 1995, as in earlier years, academe was the primary employer of U.S. citizens and permanent residents who had definite commitments for employment in the United States after graduation.

- The proportion of Ph.D.s intending to work in academe has fluctuated over the last two decades. In 1975, 60 percent of U.S. citizens and permanent residents with employment commitments were headed for academia. By 1985, the proportion had declined to 49 percent; it rose again to 54 percent in 1995. The number of new doctorates with academic commitments rose from about 6,500 in 1985 to almost 7,500 in 1995. (See Table 15, page 34.)

- Plans for employment in industry (including self-employment) increased from 13 percent of Ph.D.s in 1975 to 20 percent of Ph.D.s in 1995. "Other" employment sectors (namely K-12 schools and nonprofit organizations) also showed an increase, from 14 percent in 1975 to 17 percent in 1995, though the percentage is down from 19 percent in 1994.

- The sector of planned employment for Ph.D.s varied by field. In 1995 academic employment plans were most predominant in the humanities (83 percent) and professional/other fields (73 percent). Industry was most frequently reported among engineers (62 percent) and physical scientists (44 percent). There was a small increase in academic employment among physical scientists in the last year, however, so that the academic and industrial sectors are almost equal now for that broad field.

- Academic employment plans were more prevalent among women (60 percent) than men (49 percent), while the proportion of men in industry (27 percent) was more than twice that of women.

- The proportion of doctorates with definite commitments in academia has been consistently higher for women than men. However, the actual number of men with academic commitments was greater than for women until 1992. In 1992 the number of women with definite commitments for academic employment was 3,636, while the number for men was 3,596. This trend has continued: In 1995, 3,866 women and 3,559 men had definite commitments for employment in academia.

- The majority of Ph.D.s among every racial/ethnic group but Asians reported plans to work in academe. Asians favored industry (51 percent) over academic employment (38 percent). (See Table 16, page 35.) The sectors chosen by the various demographic groups are partially explained by their fields of specialization.

FIGURE 14 Employment sector of doctorate recipients with postgraduation commitments in the United States for selected years, 1975-1995 (U.S. citizens and permanent residents).

NOTE: Only Ph.D.s with definite commitments for employment are included. Foreign locations are excluded. Percentages are based on the number of Ph.D.s whose employment sector is known. Government includes federal, state, and local government agencies in the United States.

See Tables 15 and 16, pages 34 and 35.
See technical notes in Appendix C for rates of nonresponse to this survey question.

SOURCE: National Research Council, Survey of Earned Doctorates.

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TABLE 1 Doctorates Awarded by U.S. Colleges and Universities, 1965-1995

Year	Number	Year	Number	Year	Number	Year	Number
1965	16,340	1973	33,755	1981	31,356	1989	34,326
1966	17,949	1974	33,047	1982	31,111	1990	36,067
1967	20,403	1975	32,952	1983	31,281	1991	37,522
1968	22,937	1976	32,946	1984	31,337	1992	38,856
1969	25,743	1977	31,716	1985	31,297	1993	39,771
1970	29,498	1978	30,875	1986	31,902	1994	41,017
1971	31,867	1979	31,239	1987	32,370	1995	41,610
1972	33,041	1980	31,020	1988	33,501		

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 2 Gender of Doctorate Recipients, by Broad Field for Selected Years, 1965-1995

Field/Gender	1965	1970	1975	1980	1985	1990	1995
All Fields	16,340	29,498	32,952	31,020	31,297	36,067	41,610
Men	14,580	25,527	25,751	21,612	20,553	22,962	25,277
Women	1,760	3,971	7,201	9,408	10,744	13,105	16,333
Physical Sciences*	3,550	5,628	4,857	4,111	4,531	5,859	6,806
Men	3,373	5,308	4,454	3,609	3,817	4,789	5,307
Women	177	320	403	502	714	1,070	1,499
Engineering	2,074	3,434	3,002	2,479	3,166	4,894	6,007
Men	2,067	3,419	2,950	2,389	2,968	4,479	5,313
Women	7	15	52	90	198	415	694
Life Sciences	2,684	4,693	5,026	5,461	5,780	6,604	7,913
Men	2,406	4,084	4,031	4,047	3,910	4,124	4,585
Women	278	609	995	1,414	1,870	2,480	3,328
Social Sciences	2,327	4,566	6,066	5,855	5,765	6,093	6,623
Men	2,035	3,829	4,544	3,810	3,388	3,266	3,261
Women	292	737	1,522	2,045	2,377	2,827	3,362
Humanities	2,530	4,278	5,046	3,872	3,429	3,822	5,061
Men	2,120	3,296	3,359	2,339	1,940	2,074	2,616
Women	410	982	1,687	1,533	1,489	1,748	2,445
Education	2,736	5,857	7,360	7,586	6,733	6,511	6,546
Men	2,209	4,671	5,065	4,203	3,242	2,759	2,514
Women	527	1,186	2,295	3,383	3,491	3,752	4,032
Professional/Other	439	1,042	1,595	1,656	1,893	2,284	2,654
Men	370	920	1,348	1,215	1,288	1,471	1,681
Women	69	122	247	441	605	813	973

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 3 Race/Ethnicity of U.S. Citizen Doctorate Recipients, by Broad Field for Selected Years, 1975-1995

Field and Race/Ethnicity	1975	1980	1985	1990	1995
All Fields	27,083	25,222	23,370	24,905	27,603
Known Race/Ethnicity	25,986	23,975	22,858	24,531	27,300
Asians	286	458	517	641	1,138
Blacks	998	1,031	912	900	1,287
Hispanics	313	417	561	721	916
American Indians	36	75	96	97	148
Whites	24,353	21,994	20,772	22,172	23,811
Physical Sciences*	3,657	3,072	3,050	3,408	3,652
Known Race/Ethnicity	3,477	2,847	2,949	3,326	3,594
Asians	50	75	100	111	223
Blacks	41	25	30	27	52
Hispanics	28	27	42	85	86
American Indians	3	5	4	5	11
Whites	3,355	2,715	2,773	3,098	3,222
Engineering	1,716	1,255	1,279	1,957	2,382
Known Race/Ethnicity	1,642	1,173	1,223	1,918	2,332
Asians	61	73	90	157	255
Blacks	11	11	19	28	54
Hispanics	16	18	16	39	61
American Indians	1	3	1	4	10
Whites	1,553	1,068	1,097	1,690	1,952
Life Sciences	3,921	4,415	4,465	4,608	4,996
Known Race/Ethnicity	3,802	4,168	4,375	4,542	4,944
Asians	54	102	129	154	266
Blacks	56	65	70	73	155
Hispanics	40	36	75	104	145
American Indians	2	7	19	9	27
Whites	3,650	3,958	4,082	4,202	4,351
Social Sciences	5,182	4,992	4,579	4,666	5,034
Known Race/Ethnicity	4,938	4,769	4,474	4,595	4,992
Asians	36	79	62	86	168
Blacks	153	180	174	182	242
Hispanics	59	95	121	171	214
American Indians	8	13	18	24	29
Whites	4,682	4,402	4,099	4,132	4,339
Humanities	4,492	3,395	2,859	3,093	3,979
Known Race/Ethnicity	4,250	3,240	2,795	3,047	3,924
Asians	30	40	44	35	91
Blacks	87	96	67	72	106
Hispanics	65	80	97	112	130
American Indians	5	3	8	8	19
Whites	4,063	3,021	2,579	2,820	3,578
Education	6,803	6,749	5,776	5,635	5,680
Known Race/Ethnicity	6,606	6,496	5,702	5,582	5,647
Asians	39	65	69	67	80
Blacks	608	591	477	456	566
Hispanics	95	145	181	179	232
American Indians	16	43	40	37	40
Whites	5,848	5,652	4,935	4,843	4,729
Professional/Other	1,312	1,344	1,362	1,538	1,880
Known Race/Ethnicity	1,271	1,282	1,340	1,521	1,867
Asians	16	24	23	31	55
Blacks	42	63	75	62	112
Hispanics	10	16	29	31	48
American Indians	1	1	6	10	12
Whites	1,202	1,178	1,207	1,387	1,640

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 4 Leading U.S. Baccalaureate Institutions of U.S. Minority Ph.D.s, 1991-1995 (ranked on number of Ph.D.s)

Institution	Number
Asians	
Univ. of California-Berkeley	307
Univ. of California-Los Angeles	143
Massachusetts Institute of Technology	131
Univ. of Hawaii-Manoa	129
Harvard Univ.	89
Cornell Univ.	72
Stanford Univ.	69
California Inst. of Technology	66
Univ. of California-Davis	64
Univ. of Illinois-Urbana/Champaign	63
Univ. of Michigan	57
Univ. of California-Irvine	51
Univ. of Washington	50
Princeton Univ.	47
Yale Univ.	46
Univ. of Maryland-College Park	40
Univ. of Southern California	40
Univ. of Chicago	34
Univ. of Wisconsin-Madison	34
Johns Hopkins Univ.	33
Univ. of Texas-Austin	33
Top 21 U.S. Institutions	*1,598*
Total U.S. Institutions Reported (518)	*3,440*
Blacks	
Howard Univ.*	136
Spelman College*	78
Wayne State Univ.	69
Hampton Univ.*	69
Tuskegee Univ.*	64
Southern Univ. & A&M Univ.-Baton Rouge*	60
Florida A & M Univ.*	56
North Carolina Central Univ.*	55
North Carolina A & T St. Univ.*	54
Jackson State Univ.*	52
Chicago State Univ.	46
Fisk Univ.*	46
Univ. of Michigan	45
South Carolina State Univ.*	45
Michigan State Univ.	43
Univ. of Maryland-College Park	43
Morgan State Univ.*	43
Tennessee State Univ.*	39
Grambling State Univ.*	39
Texas Southern Univ.*	39
Top 20 U.S. Institutions	*1,121*
Total U.S. Institutions Reported (862)	*5,284*
Hispanics	
Univ. of Puerto Rico-Rio Piedras	492
Univ. of Puerto Rico-Mayaguez	103
Univ. of California-Berkeley	84
Univ. of California-Los Angeles	73
Univ. of Texas-Austin	65
Univ. of Miami	59
Univ. of New Mexico	52
Univ. of California-Santa Barbara	42
Catholic Univ. of Puerto Rico	42
Florida International Univ.	41
Univ. of Texas-El Paso	41
Cornell Univ.	40
Univ. of Arizona	40
California State Univ.-Los Angeles	38
Univ. of California-Irvine	36
Inter American Univ.-San German	34
Harvard Univ.	33
Univ. of California-San Diego	32
New York Univ.	31
Rutgers Univ.	30
Top 20 U.S. Institutions	*1,408*
Total U.S. Institutions Reported (672)	*3,873*
American Indians	
Univ. of Oklahoma	19
Oklahoma State Univ.	17
Univ. of Central Oklahoma	11
Northeastern State Univ.	10
Univ. of California-Berkeley	9
Michigan State Univ.	7
Pembroke State Univ.	7
Univ. of Arkansas-Fayetteville	7
Univ. of Arizona	7
Northern Arizona Univ.	7
Univ. of Illinois-Urbana/Champaign	6
Univ. of Florida	6
Univ. of Montana	6
Univ. of Colorado-Boulder	6
Univ. of California-Davis	6
Univ. of California-Santa Barbara	6
Top 16 U.S. Institutions	*137*
Total U.S. Institutions Reported (365)	*685*

Note: Approximately 1,877 U.S. institutions awarded baccalaureate degrees to U.S. citizens who received Ph.D.s between 1991 and 1995.

NOTE: See technical notes in Appendix C for total numbers of U.S. minority Ph.D.s in this period, the percentage reporting foreign institutions, and rates of nonresponse to baccalaureate institution, citizenship, and race/ethnicity.

*This institution is one of the Historically Black Colleges and Universities (HBCUs) founded during legal segregation in the late 1800s and early 1900s for the specific purpose of educating blacks. There are currently 102 HBCUs, 89 of which award baccalaureates.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 5 Leading Ph.D. Institutions of U.S. Minority Ph.D.s, 1991-1995 (ranked on number of Ph.D.s)

Institution	Number
Asians	
Univ. of California-Berkeley	237
Univ. of California-Los Angeles	224
Stanford Univ.	186
Univ. of Southern California	134
Univ. of Illinois-Urbana/Champaign	116
Harvard Univ.	113
Massachusetts Inst. of Technology	111
Univ. of Michigan	98
Univ. of Hawaii-Manoa	83
Cornell Univ.	75
Univ. of Washington	72
Univ. of California-Davis	69
Univ. of California-San Diego	68
Columbia Univ.	64
Northwestern Univ.	60
Univ. of Wisconsin-Madison	60
Univ. of Maryland-College Park	60
Yale Univ.	58
Univ. of Texas-Austin	57
Top 19 Institutions	*1,945*
Total Institutions Reported (293)	*4,611*
Blacks	
Nova Southeastern Univ.	205
Howard Univ.*	195
Columbia Univ.-Teachers College	132
Wayne State Univ.	128
Clark Atlanta Univ.*	124
Univ. of Maryland-College Park	119
Ohio State Univ.	114
Univ. of Michigan	109
Temple Univ.	93
Univ. of Massachusetts-Amherst	88
Florida State Univ.	82
Univ. of North Carolina-Chapel Hill	75
Walden Univ.	70
North Carolina State Univ.-Raleigh	68
Michigan State Univ.	67
Univ. of Florida	67
Univ. of South Carolina	66
Univ. of California-Berkeley	66
Virginia Polytechnic Inst. & State Univ.	65
Harvard Univ.	62
Univ. of Pittsburgh	62
Top 21 Institutions	*2,057*
Total Institutions Reported (282)	*5,462*

Institution	Number
Hispanics	
Univ. of Puerto Rico-Rio Piedras	121
Univ. of Texas-Austin	120
Univ. of California-Los Angeles	119
Univ. of California-Berkeley	109
Texas A & M Univ.	97
Harvard Univ.	78
Stanford Univ.	77
Univ. of Southern California	75
Univ. of Michigan	73
Univ. of Massachusetts-Amherst	70
New York Univ.	70
Univ. of Miami	68
Univ. of New Mexico	64
Univ. of Arizona	61
Penn State Univ.	55
Univ. of Wisconsin-Madison	55
Nova Southeastern Univ.	53
CUNY-Grad. School & Univ. Center	51
Univ. of Illinois-Urbana/Champaign	50
Univ. of Colorado-Boulder	50
Top 20 Institutions	*1,516*
Total Institutions Reported (282)	*4,143*
American Indians	
Univ. of Oklahoma	26
Oklahoma State Univ	20
Univ. of Wisconsin-Madison	14
Univ. of Arizona	14
Univ. of California-Berkeley	14
Penn State Univ.	13
Univ. of Arkansas-Fayetteville	13
Stanford Univ.	13
Harvard Univ.	10
Univ. of Michigan	10
Univ. of Missouri-Columbia	10
Univ. of North Carolina-Chapel Hill	10
North Carolina State Univ.-Raleigh	10
Univ. of Texas-Austin	10
Northern Arizona Univ.	10
Univ. of Washington	10
Texas A&M Univ.	9
Purdue Univ.	8
Univ. of South Dakota	8
Univ. of California-Los Angeles	8
Univ. of California-Santa Barbara	8
Top 21 Institutions	*248*
Total Institutions Reported (196)	*689*

Note: 386 institutions awarded doctorates between 1991 and 1995.

NOTE: See technical notes in Appendix C for rates of nonresponse to citizenship and race/ethnicity.

*This institution is one of the Historically Black Colleges and Universities (HBCUs) founded during legal segregation in the late 1800s and early 1900s for the specific purpose of educating blacks. There are currently 102 HBCUs, 12 of which award doctorates.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 6 Major Field of Doctorate Recipients for Selected Years, 1965-1995

Field	1965	1970	1975	1980	1985	1990	1995
All Fields	16,340	29,498	32,952	31,020	31,297	36,067	41,610
Physical Sciences	3,550	5,628	4,857	4,111	4,531	5,859	6,806
Physics/Astronomy	1,046	1,655	1,300	983	1,080	1,393	1,652
Chemistry	1,444	2,238	1,776	1,538	1,836	2,100	2,161
Earth, Atmos., & Marine Sci.	375	510	634	628	617	769	805
Mathematics	685	1,225	1,147	744	688	892	1,190
Computer Sciences*	NA	NA	NA	218	310	705	998
Engineering	2,074	3,434	3,002	2,479	3,166	4,894	6,007
Life Sciences	2,684	4,693	5,026	5,461	5,780	6,604	7,913
Biological Sciences	1,963	3,361	3,497	3,803	3,793	4,327	5,370
Health Sciences	145	414	462	586	729	956	1,331
Agricultural Sciences	576	918	1,067	1,072	1,258	1,321	1,212
Social Sciences	2,327	4,566	6,066	5,855	5,765	6,093	6,623
Psychology	954	1,890	2,751	3,098	3,118	3,281	3,267
Anthropology	82	217	386	370	353	324	375
Economics	560	853	895	767	811	862	980
Poli. Sci. & Int'l. Relations	391	636	862	585	484	559	672
Sociology	239	505	680	600	461	428	539
Other Social Sciences	101	465	492	435	538	639	790
Humanities	2,530	4,278	5,046	3,872	3,429	3,822	5,061
History	607	1,091	1,183	745	543	612	889
Amer. & Eng. Lang. & Lit.	667	1,098	1,290	952	729	796	1,080
Foreign Lang. & Lit.	321	647	826	535	435	512	639
Other Humanities	935	1,442	1,747	1,640	1,722	1,902	2,453
Education	2,736	5,857	7,360	7,586	6,733	6,511	6,546
Teacher Education	325	563	570	639	463	419	388
Teaching Fields	629	1,384	1,417	1,471	1,118	923	921
Other Education	1,782	3,910	5,373	5,476	5,152	5,169	5,237
Professional/Other	439	1,042	1,595	1,656	1,893	2,284	2,654
Business & Management	287	584	787	640	790	1,036	1,323
Communications	24	27	264	270	266	323	379
Other Professional Fields	123	277	524	724	812	858	926
Other Fields	5	154	20	22	25	67	26

*"Computer sciences" first appeared on the survey form in 1978.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 7 Major Field of U.S. Citizen Ph.D.s, by Race/Ethnicity, 1995

Field	Total U.S. Citizen Ph.D.s	Known Race/ Ethnicity	Asians*	Blacks	His-panics	Amer. Indians†	Whites
All Fields	27,603	27,300	1,138	1,287	916	148	23,811
Physical Sciences	3,652	3,594	223	52	86	11	3,222
Physics/Astronomy	884	860	57	10	23	2	768
Chemistry	1,237	1,226	91	27	38	7	1,063
Earth, Atmos., & Marine Sci.	493	482	8	2	7	0	465
Mathematics	554	550	25	4	12	2	507
Computer Sciences	484	476	42	9	6	0	419
Engineering	2,382	2,332	255	54	61	10	1,952
Life Sciences	4,996	4,944	266	155	145	27	4,351
Biological Sciences	3,489	3,457	229	88	104	15	3,021
Health Sciences	938	923	23	55	29	9	807
Agricultural Sciences	569	564	14	12	12	3	523
Social Sciences	5,034	4,992	168	242	214	29	4,339
Psychology	2,942	2,921	82	138	131	14	2,556
Anthropology	303	298	9	7	18	5	259
Economics	418	413	28	12	10	1	362
Poli. Sci. & Int'l. Relations	456	453	21	24	15	2	391
Sociology	371	369	15	26	12	1	315
Other Social Sciences	544	538	13	35	28	6	456
Humanities	3,979	3,924	91	106	130	19	3,578
History	751	745	15	21	22	1	686
Amer. & Eng. Lang. & Lit.	924	916	19	18	13	6	860
Foreign Lang. & Lit.	404	394	9	3	47	2	333
Other Humanities	1,900	1,869	48	64	48	10	1,699
Education	5,680	5,647	80	566	232	40	4,729
Teacher Education	345	345	3	37	11	1	293
Teaching Fields	757	754	11	44	26	5	668
Other Education	4,578	4,548	66	485	195	34	3,768
Professional/Other	1,880	1,867	55	112	48	12	1,640
Business & Management	859	855	38	31	16	7	763
Communications	293	289	7	22	10	1	249
Other Professional Fields	712	708	10	58	22	4	614
Other Fields	16	15	0	1	0	0	14

NOTE: See technical notes in Appendix C for the rate of nonresponse to the question on race/ethnicity.

*"Asians" includes Pacific Islanders.
†"American Indians" includes Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 8 Median Years to Doctorate from Baccalaureate Award, by Broad Field for Selected Years, 1970-1995

Field	1970	1975	1980	1985	1990	1995
All Fields						
Total	8.0	8.7	9.3	10.3	10.6	10.9
Registered	5.6	6.0	6.3	6.9	7.0	7.2
Physical Sciences*						
Total	6.0	6.9	7.0	7.3	7.8	8.4
Registered	5.3	5.7	5.9	6.1	6.3	6.9
Engineering						
Total	7.0	7.6	7.7	8.2	8.3	9.1
Registered	5.2	5.6	5.7	6.0	6.1	6.4
Life Sciences						
Total	6.7	7.2	7.4	8.5	9.1	9.5
Registered	5.3	5.7	6.0	6.4	6.8	7.0
Social Sciences						
Total	7.3	7.9	8.7	10.0	10.6	10.5
Registered	5.5	5.8	6.5	7.2	7.7	7.5
Humanities						
Total	9.0	9.7	10.7	11.9	12.2	12.0
Registered	6.0	6.9	7.9	8.4	8.3	8.4
Education						
Total	12.8	12.6	13.2	15.2	18.0	19.9
Registered	6.2	6.5	7.0	7.7	8.0	8.2
Professional/Other						
Total	10.0	10.3	11.0	13.0	13.3	13.5
Registered	5.5	6.2	6.5	7.3	7.6	7.6

NOTE: Median calculations are based on the number of individuals who provided complete information about their postbaccalaureate education. "Total" time-to-degree measures the number of years elapsed between receipt of the baccalaureate and the Ph.D. "Registered" time-to-degree gauges the amount of time enrolled in graduate school, including master's degrees and enrollment in nondegree programs. *Please note that the method of median computation was revised two years ago.* See technical notes in Appendix C for explanation of the revision and also for rates of nonresponse to the applicable questions.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 9 Median Years to Doctorate from Baccalaureate Award, by Demographic Group and Broad Field, 1995

	All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof./ Other
Total Time from Baccalaureate								
All Ph.D.s	10.9	8.4	9.1	9.5	10.5	12.0	19.9	13.5
Men	10.2	8.5	9.2	9.3	10.3	11.7	19.0	13.0
Women	12.0	8.2	8.3	9.9	10.6	12.1	20.3	14.7
U.S. Citizens	11.3	7.6	8.3	9.0	10.3	12.0	20.7	15.3
Non-U.S., Permanent Visas	11.0	10.8	10.9	10.3	12.0	12.5	13.2	12.3
Non-U.S., Temporary Visas	9.7	8.9	9.1	9.9	10.2	10.4	13.8	10.8
U.S. Citizens								
Asians†	9.0	7.4	8.3	8.0	9.3	11.7	20.1	12.9
Blacks	16.2	8.4	8.6	10.5	12.1	15.5	21.9	16.1
Hispanics	11.9	7.4	8.0	9.0	10.0	11.9	19.4	13.2
American Indians‡	13.1	8.7	9.8	9.6	8.1	14.3	20.3	14.5
Whites	11.3	7.6	8.3	9.1	10.3	12.0	20.7	15.5
Registered Time from Baccalaureate								
All Ph.D.s	7.2	6.9	6.4	7.0	7.5	8.4	8.2	7.6
Men	7.0	6.9	6.4	6.8	7.4	8.3	8.2	7.6
Women	7.5	6.7	6.2	7.0	7.6	8.5	8.3	7.6
U.S. Citizens	7.4	6.5	6.3	7.0	7.5	8.5	8.5	7.7
Non-U.S., Permanent Visas	7.5	7.7	7.2	7.1	8.3	8.4	7.3	7.9
Non-U.S., Temporary Visas	6.8	6.8	6.2	6.7	7.3	7.7	6.8	7.2
U.S. Citizens								
Asians†	7.0	6.7	6.7	6.9	7.8	8.7	8.0	7.9
Blacks	7.8	7.3	6.7	6.9	8.0	8.0	8.3	7.6
Hispanics	7.4	6.5	6.4	7.0	7.5	8.1	8.3	7.2
American Indians‡	7.0	6.9	5.8	7.5	6.4	9.8	7.0	7.0
Whites	7.4	6.5	6.2	7.0	7.5	8.5	8.5	7.8

NOTE: Median calculations are based on the number of individuals who provided complete information about their postbaccalaureate education. "Total" time measures the number of years elapsed between receipt of the baccalaureate and the Ph.D. "Registered" time-to-degree gauges the amount of time enrolled in graduate school, including master's degrees and enrollment in nondegree programs. *Please note that the method of median computation was revised two years ago.* See technical notes in Appendix C for explanation of the revision and also for rates of nonresponse to the applicable questions.

*Includes mathematics and computer sciences.
†"Asians" includes Pacific Islanders.
‡"American Indians" includes Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 10 Primary Sources of Support for Doctorate Recipients, by Broad Field and Demographic Group, 1995 (includes only Ph.D.s who reported primary source of support)

Primary Source of Support (responses only)		All Ph.D.s	Men	Women	U.S. Cits.	Perm. Visas	Temp. Visas	U.S. Citizens*				
								Asians	Blacks	His-panics	Amer. Indians	Whites
All Fields	N	41,610	25,277	16,333	27,603	4,307	8,806	1,138	1,287	916	148	23,811
Personal	%	35.8	29.3	45.7	44.7	15.6	14.9	25.3	53.9	43.8	48.2	45.3
University	%	52.5	57.9	44.2	43.8	80.0	69.2	55.8	30.1	36.5	38.6	44.0
Federal	%	5.6	5.5	5.9	7.4	1.1	1.7	13.8	7.4	12.5	7.9	7.0
Other	%	6.1	7.2	4.3	4.1	3.3	14.2	5.1	8.6	7.2	5.3	3.7
Physical Sciences†	N	6,806	5,307	1,499	3,652	1,169	1,849	223	52	86	11	3,222
Personal	%	12.3	12.1	13.1	16.6	7.4	5.7	11.0	8.6	17.6	18.2	17.0
University	%	77.1	77.4	75.8	69.6	90.8	85.3	77.3	45.7	62.2	54.5	69.7
Federal	%	5.7	5.2	7.5	9.4	0.2	0.7	6.1	25.7	13.5	18.2	9.2
Other	%	5.0	5.3	3.6	4.4	1.6	8.2	5.5	20.0	6.8	9.1	4.1
Engineering	N	6,007	5,313	694	2,382	954	2,523	255	54	61	10	1,952
Personal	%	15.8	16.6	10.4	20.6	11.3	12.2	20.3	7.0	20.9	42.9	21.1
University	%	68.9	68.7	70.5	57.5	85.4	75.3	59.9	48.8	32.6	42.9	57.9
Federal	%	5.7	4.8	12.0	12.3	0.4	0.5	11.1	11.6	30.2	14.3	12.1
Other	%	9.5	9.9	7.1	9.6	2.8	12.0	8.7	32.6	16.3	0.0	9.0
Life Sciences	N	7,913	4,585	3,328	4,996	1,059	1,727	266	155	145	27	4,351
Personal	%	20.9	17.0	26.3	26.7	8.8	9.8	16.0	20.0	22.6	45.0	27.7
University	%	58.4	61.5	54.2	51.1	83.5	66.3	44.6	46.7	48.7	45.0	51.7
Federal	%	13.4	12.8	14.3	18.4	3.3	3.5	34.7	22.9	19.1	10.0	17.3
Other	%	7.2	8.7	5.2	3.8	4.4	20.3	4.7	10.5	9.6	0.0	3.4
Social Sciences	N	6,623	3,261	3,362	5,034	397	1,021	168	242	214	29	4,339
Personal	%	44.5	39.9	48.9	49.4	33.2	22.7	37.0	42.0	47.5	27.3	50.5
University	%	46.2	50.2	42.4	42.9	60.1	59.2	53.8	41.4	31.2	54.5	42.8
Federal	%	4.9	4.6	5.2	5.6	0.8	2.6	6.7	9.3	14.2	9.1	5.0
Other	%	4.3	5.3	3.5	2.2	5.9	15.5	2.5	7.4	7.1	9.1	1.7
Humanities	N	5,061	2,616	2,445	3,979	336	649	91	106	130	19	3,578
Personal	%	43.9	43.1	44.7	47.8	33.6	23.5	43.1	41.3	36.8	23.1	48.6
University	%	49.5	49.4	49.6	46.5	64.2	61.2	52.8	41.3	55.3	76.9	46.1
Federal	%	1.8	2.1	1.4	1.8	0.0	2.9	1.4	2.7	3.9	0.0	1.7
Other	%	4.9	5.4	4.3	3.9	2.2	12.5	2.8	14.7	3.9	0.0	3.7
Education	N	6,546	2,514	4,032	5,680	215	501	80	566	232	40	4,729
Personal	%	78.4	78.6	78.3	81.7	50.0	46.8	76.6	81.9	76.6	80.0	82.1
University	%	15.9	14.1	16.9	13.8	46.2	30.5	14.9	11.9	13.5	10.0	14.0
Federal	%	1.1	1.2	1.1	1.0	0.0	2.8	8.5	1.6	6.4	3.3	0.6
Other	%	4.6	6.1	3.7	3.4	3.8	20.0	0.0	4.6	3.5	6.7	3.3
Professional/Other	N	2,654	1,681	973	1,880	177	536	55	112	48	12	1,640
Personal	%	52.6	51.5	54.4	61.1	36.7	24.0	38.5	49.3	65.7	72.7	62.1
University	%	38.8	38.4	39.5	33.7	56.0	53.8	56.4	43.8	20.0	9.1	33.1
Federal	%	1.3	1.1	1.7	1.2	1.8	1.3	0.0	4.1	2.9	9.1	1.0
Other	%	7.3	9.0	4.5	4.0	5.5	20.8	5.1	2.7	11.4	9.1	3.8

NOTE: Numbers represent those Ph.D.s with known primary support; percentages are based on these numbers. Because nonresponse to "primary" source of support is much greater than for other variables and fluctuates from year to year, the reader is advised *not* to compare percentages in this table with those published in earlier reports. The overall nonresponse rate for "primary" source of support was 25.2 percent in 1995, compared to 27.6 percent in 1994, 33.8 percent in 1993, and 30.3 percent in 1992. See technical notes in Appendix C for further information.

"Personal" includes loans as well as own earnings and contributions from spouse/family. Federally funded research assistantships (RAs) are grouped under "University" because not all recipients of such support are aware of the actual source of funding. For further definition of "Federal" support, see item 17 on the survey questionnaire in Appendix D. "Other" support includes U.S. nationally competitive fellowships, business/employer funds, foreign government, and state government.

*"Asians" includes Pacific Islanders. "American Indians" includes Alaskan Natives.
†Includes mathematics and computer sciences.
SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 11 Cumulative Debt Related to the Education of Doctorate Recipients, by Broad Field, 1995

		All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof./ Other
All Ph.D.s	N	41,610	6,806	6,007	7,913	6,623	5,061	6,546	2,654
Responses to Debt Status	N	38,398	6,332	5,534	7,340	6,047	4,718	5,996	2,431
Without Debt	%	52.7	59.5	62.1	50.7	39.8	44.2	60.3	49.7
With Debt	%	47.3	40.5	37.9	49.3	60.2	55.8	39.7	50.3
$5,000 or less	%	11.6	12.3	10.8	12.5	10.4	13.6	10.5	10.6
$5,001 to $10,000	%	9.8	10.5	7.8	11.6	10.0	10.6	8.2	8.8
$10,001 to $15,000	%	7.4	6.7	5.6	8.6	8.8	9.3	5.3	7.6
$15,001 to $20,000	%	4.9	3.5	3.7	4.9	6.5	7.3	3.8	5.1
$20,001 to $25,000	%	3.7	2.6	2.3	3.7	5.5	4.6	3.7	4.1
$25,001 to $30,000	%	2.7	1.5	1.9	2.4	4.5	3.1	2.6	4.0
$30,001 or more	%	7.2	3.5	5.9	5.7	14.5	7.3	5.6	10.2

NOTE: This table displays information on debt related to a recipient's *combined undergraduate and graduate education*. "All Ph.D.s" includes recipients whose debt status is unknown. Percentages are based on the number with "Responses to Debt Status." The "With Debt" and "Without Debt" percentages add to 100.0. Percentages for levels of debt add to the total percentage of Ph.D.s "With Debt." See technical notes in Appendix C for the rate of nonresponse to this question.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 12 Cumulative Debt Related to the Education of Doctorate Recipients, by Demographic Group, 1995

								U.S. Citizens*				
		All Ph.D.s	Men	Women	U.S. Cits.	Perm. Visas	Temp. Visas	Asians	Blacks	His-panics	Amer. Indians	Whites
All Ph.D.s	N	41,610	25,277	16,333	27,603	4,307	8,806	1,138	1,287	916	148	23,811
Responses to Debt Status	N	38,398	23,261	15,137	26,191	4,067	8,121	1,094	1,166	862	141	22,744
Without Debt	%	52.7	53.0	52.2	45.0	73.5	67.1	46.1	34.8	32.7	41.1	46.0
With Debt	%	47.3	47.0	47.8	55.0	26.5	32.9	53.9	65.2	67.3	58.9	54.0
$5,000 or less	%	11.6	11.7	11.4	12.4	7.7	10.9	12.4	13.6	11.8	14.9	12.4
$5,001 to $10,000	%	9.8	10.0	9.4	11.7	5.1	6.0	13.3	10.5	12.3	7.8	11.6
$10,001 to $15,000	%	7.4	7.2	7.7	9.1	4.4	3.5	7.7	10.8	11.0	6.4	9.0
$15,001 to $20,000	%	4.9	4.9	4.9	6.1	2.5	2.0	6.5	6.5	7.9	6.4	6.0
$20,001 to $25,000	%	3.7	3.6	3.9	4.6	2.0	1.7	3.3	6.3	7.0	4.3	4.5
$25,001 to $30,000	%	2.7	2.6	2.9	3.3	1.3	1.5	3.1	4.8	3.2	7.1	3.2
$30,001 or more	%	7.2	7.0	7.6	7.8	3.5	7.4	7.7	12.6	14.0	12.1	7.2

NOTE: This table displays information on debt related to a recipient's *combined undergraduate and graduate education*. "All Ph.D.s" includes recipients whose debt status is unknown. Percentages are based on the number with "Responses to Debt Status." The "With Debt" and "Without Debt" percentages add to 100.0. Percentages for levels of debt add to the total percentage of Ph.D.s "With Debt." See technical notes in Appendix C for the rate of nonresponse to this question.

*"Asians" includes Pacific Islanders. "American Indians" includes Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 13 Postgraduation Commitments of Doctorate Recipients, by Type of Plans and Broad Field for Selected Years, 1975-1995

		All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof / Other
All Definite Commitments									
1975	N	22,925	3,375	2,050	3,657	4,312	2,945	5,286	1,300
1980	N	21,920	3,083	1,834	4,030	3,994	2,296	5,371	1,312
1985	N	20,952	3,190	1,983	4,018	3,660	2,031	4,665	1,405
1990	N	23,413	3,846	2,835	4,534	3,800	2,303	4,470	1,625
1995	N	24,854	4,005	3,066	5,087	3,910	2,717	4,304	1,765
Definite Commitments with Responses to Type of Plans									
1975	N	22,709	3,354	2,040	3,631	4,274	2,893	5,230	1,287
1980	N	21,824	3,078	1,827	4,009	3,983	2,281	5,338	1,308
1985	N	20,868	3,180	1,977	4,012	3,644	2,022	4,639	1,394
1990	N	23,299	3,842	2,822	4,525	3,780	2,281	4,428	1,621
1995	N	24,697	3,986	3,058	5,071	3,880	2,688	4,258	1,756
Employment									
1975	%	83.0	61.4	88.6	52.5	91.4	95.9	98.1	98.4
1980	%	80.3	64.0	87.7	45.7	86.9	94.9	97.7	97.7
1985	%	77.7	59.1	85.1	44.7	85.2	94.1	96.9	97.6
1990	%	73.6	53.3	80.7	37.1	84.2	93.6	96.0	96.6
1995	%	70.2	48.5	75.2	35.3	78.5	92.0	96.1	96.6
Study									
1975	%	17.0	38.6	11.4	47.5	8.6	4.1	1.9	1.6
1980	%	19.7	36.0	12.3	54.3	13.1	5.1	2.3	2.3
1985	%	22.3	40.9	14.9	55.3	14.8	5.9	3.1	2.4
1990	%	26.4	46.7	19.3	62.9	15.8	6.4	4.0	3.4
1995	%	29.8	51.5	24.8	64.7	21.5	8.0	3.9	3.4

NOTE: Only Ph.D.s with definite commitments are included. "All Definite Commitments" includes recipients who reported definite commitments but not type of plans (employment or study). Percentages are based on the number of Ph.D.s who reported a definite commitment and a type of plan. See technical notes in Appendix C for rates of nonresponse to the applicable questions and for further explanation of postgraduation plans.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 14 Postgraduation Commitments of Doctorate Recipients, by Type of Plans and Demographic Group for Selected Years, 1975-1995

								U.S. Citizens & Permanent Residents*				
		All Ph.D.s	Men	Women	U.S. Cits.	Perm. Visas	Temp. Visas	Asians	Blacks	His-panics	Amer. Indians	Whites
All Definite Commitments												
1975	N	22,925	18,406	4,519	19,561	1,040	2,278	626	723	259	27	18,330
1980	N	21,920	15,690	6,230	18,637	815	2,449	735	766	323	57	16,868
1985	N	20,952	14,042	6,910	16,878	763	3,289	661	668	428	71	15,587
1990	N	23,413	14,899	8,514	17,784	916	4,670	751	667	534	60	16,474
1995	N	24,854	14,917	9,937	18,065	2,073	4,699	2,215	878	641	94	16,167
Definite Commitments with Responses to Type of Plans												
1975	N	22,709	18,246	4,463	19,392	1,028	2,245	617	707	254	27	18,183
1980	N	21,824	15,622	6,202	18,575	813	2,417	734	755	322	57	16,822
1985	N	20,868	13,985	6,883	16,822	757	3,267	657	659	425	70	15,546
1990	N	23,299	14,824	8,475	17,705	911	4,640	749	661	531	60	16,402
1995	N	24,697	14,833	9,864	17,955	2,059	4,666	2,199	865	633	93	16,084
Employment												
1975	%	83.0	82.7	84.2	84.4	73.6	75.6	69.9	93.8	89.0	92.6	84.0
1980	%	80.3	79.3	82.8	81.0	77.2	76.0	73.7	93.8	87.0	86.0	80.6
1985	%	77.7	76.2	80.9	78.6	79.1	72.8	73.8	90.4	83.5	81.4	78.2
1990	%	73.6	71.4	77.4	76.4	69.4	63.3	65.0	87.0	77.6	86.7	76.2
1995	%	70.2	67.3	74.4	74.1	52.2	62.8	50.7	82.5	73.0	72.0	74.2
Study												
1975	%	17.0	17.3	15.8	15.6	26.4	24.4	30.1	6.2	11.0	7.4	16.0
1980	%	19.7	20.7	17.2	19.0	22.8	24.0	26.3	6.2	13.0	14.0	19.4
1985	%	22.3	23.8	19.1	21.4	20.9	27.2	26.2	9.6	16.5	18.6	21.8
1990	%	26.4	28.6	22.6	23.6	30.6	36.7	35.0	13.0	22.4	13.3	23.8
1995	%	29.8	32.7	25.6	25.9	47.8	37.2	49.3	17.5	27.0	28.0	25.8

NOTE: Only Ph.D.s with definite commitments are included. "All Definite Commitments" includes recipients who reported definite commitments but not type of plans (employment or study). Percentages are based on the number of Ph.D.s who reported a definite commitment and a type of plan. See technical notes in Appendix C for rates of nonresponse to the applicable questions and for further explanation of postgraduation plans.

*"Asians" includes Pacific Islanders. "American Indians" includes Alaskan Natives.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 15 Employment Sector of Doctorate Recipients with Postgraduation Commitments in the United States, by Broad Field for Selected Years, 1975-1995 (U.S. citizens and permanent residents)

		All Fields	Physical Sci.*	Engi-neering	Life Sci.	Social Sci.	Human-ities	Educa-tion	Prof./ Other
All Employment Commitments									
1975	N	16,697	1,790	1,414	1,526	3,446	2,551	4,859	1,111
1980	N	15,413	1,728	1,154	1,445	3,108	1,997	4,857	1,124
1985	N	13,584	1,520	1,031	1,382	2,694	1,712	4,115	1,130
1990	N	13,836	1,508	1,354	1,222	2,694	1,873	3,974	1,211
1995	N	13,946	1,446	1,456	1,344	2,472	2,102	3,809	1,317
Employment Commitments with Responses to Sector									
1975	N	16,603	1,787	1,413	1,517	3,433	2,533	4,811	1,109
1980	N	15,318	1,723	1,153	1,442	3,085	1,985	4,809	1,121
1985	N	13,439	1,516	1,027	1,378	2,658	1,691	4,042	1,127
1990	N	13,686	1,502	1,350	1,210	2,646	1,863	3,915	1,200
1995	N	13,707	1,425	1,436	1,324	2,414	2,081	3,723	1,304
Academe†									
1975	%	60.2	40.6	24.3	58.5	66.2	86.6	56.3	78.5
1980	%	51.9	33.0	24.9	55.8	51.7	76.7	49.2	72.4
1985	%	48.8	32.6	26.2	54.5	46.5	77.9	41.7	71.7
1990	%	51.7	34.9	26.4	50.2	48.6	83.6	46.8	76.7
1995	%	54.2	41.5	21.7	53.3	53.6	83.0	49.6	72.8
Industry/Self-Employed									
1975	%	12.9	39.7	51.1	16.3	6.0	2.3	2.5	6.9
1980	%	17.8	52.1	55.4	21.4	12.9	7.1	5.1	8.3
1985	%	20.5	54.6	56.8	25.8	17.3	6.3	7.8	9.2
1990	%	20.5	53.1	55.9	25.5	19.8	4.8	6.3	7.5
1995	%	19.9	44.2	62.0	23.6	17.1	5.4	6.2	11.0
Government									
1975	%	12.8	17.0	21.9	18.3	16.4	3.2	11.1	5.2
1980	%	12.5	12.8	17.5	17.1	17.8	4.6	11.2	6.6
1985	%	11.7	11.2	15.0	14.2	16.2	3.3	12.3	6.7
1990	%	9.6	10.0	15.3	16.7	14.1	2.2	7.4	4.3
1995	%	8.8	10.7	13.8	14.7	13.6	1.9	6.1	5.4
Other‡									
1975	%	14.0	2.7	2.6	6.8	11.3	7.9	30.1	9.4
1980	%	17.8	2.1	2.2	5.8	17.7	11.5	34.5	12.7
1985	%	19.0	1.6	2.0	5.5	20.0	12.5	38.3	12.3
1990	%	18.1	2.1	2.4	7.7	17.5	9.4	39.6	11.5
1995	%	17.1	3.5	2.5	8.5	15.7	9.7	38.2	10.9

NOTE: Only Ph.D.s with definite commitments for employment are included. Foreign locations are excluded. "All Employment Commitments" includes recipients whose employment sector is unreported; percentages are based on the number of Ph.D.s who reported employment commitments in a specific sector. See technical notes in Appendix C for rates of nonresponse to this question and for further explanation of postgraduation plans.

*Includes mathematics and computer sciences.
†Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "Other."
‡"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 16 Employment Sector of Doctorate Recipients with Postgraduation Commitments in the United States, by Demographic Group for Selected Years, 1975-1995

		U.S. Citizens & Permanent Residents*										
		All Ph.D.s	Men	Women	Asians	Blacks	His-panics	Amer. Indians	Whites	U.S. Cits.	Perm. Visas	Temp. Visas
All Employment Commitments												
1975	N	16,697	13,148	3,549	406	660	223	25	14,903	16,025	672	425
1980	N	15,413	10,561	4,852	517	700	276	48	13,354	14,824	589	470
1985	N	13,584	8,430	5,154	452	582	344	57	11,987	13,053	531	755
1990	N	13,836	7,842	5,994	445	570	396	52	12,241	13,294	542	1,205
1995	N	13,946	7,392	6,554	1,02	704	444	65	11,622	12,991	955	1,230
Employment Commitments with Responses to Sector												
1975	N	16,603	13,081	3,522	405	653	221	24	14,822	15,932	671	425
1980	N	15,318	10,515	4,803	515	681	274	48	13,287	14,735	583	470
1985	N	13,439	8,366	5,073	447	561	337	57	11,880	12,917	522	752
1990	N	13,686	7,782	5,904	442	560	391	51	12,112	13,151	535	1,200
1995	N	13,707	7,280	6,427	999	679	435	64	11,444	12,776	931	1,214
Academe†												
1975	%	60.2	57.3	71.2	40.5	68.5	71.9	66.7	60.3	60.6	51.1	52.5
1980	%	51.9	48.2	60.1	29.7	59.2	58.4	47.9	52.4	52.4	40.8	48.3
1985	%	48.8	45.8	53.7	37.6	52.2	59.6	52.6	48.7	48.7	52.5	61.4
1990	%	51.7	47.8	57.0	39.4	56.1	57.8	64.7	51.8	51.6	55.7	55.9
1995	%	54.2	48.9	60.2	37.9	61.3	60.7	64.1	54.9	55.1	41.7	46.7
Industry/Self-Employed												
1975	%	12.9	15.1	4.9	42.7	2.9	10.9	4.2	12.3	11.9	37.9	38.1
1980	%	17.8	21.0	10.6	54.4	4.7	9.9	12.5	17.0	16.5	48.5	41.5
1985	%	20.5	25.0	13.0	48.1	7.3	12.5	14.0	20.2	19.7	40.2	31.5
1990	%	20.5	25.9	13.4	44.8	5.5	12.5	13.7	20.5	20.0	33.3	39.0
1995	%	19.9	26.5	12.5	50.5	7.2	15.6	15.6	18.2	17.9	48.2	46.4
Government												
1975	%	12.8	14.0	8.6	9.6	11.8	8.1	12.5	13.1	13.1	5.2	2.6
1980	%	12.5	14.2	9.0	8.0	13.7	12.8	16.7	12.6	12.9	3.8	4.5
1985	%	11.7	12.1	11.1	7.4	14.3	10.4	10.5	11.8	12.1	2.7	2.0
1990	%	9.6	10.9	7.9	8.4	10.2	11.3	3.9	9.6	9.8	3.7	1.8
1995	%	8.8	9.9	7.6	5.6	7.2	9.4	6.2	9.1	9.2	3.1	1.8
Other‡												
1975	%	14.0	13.7	15.3	7.2	16.8	9.0	16.7	14.3	14.4	5.8	6.8
1980	%	17.8	16.6	20.3	8.0	22.5	19.0	22.9	17.9	18.2	6.9	5.7
1985	%	19.0	17.1	22.2	6.9	26.2	17.5	22.8	19.3	19.6	4.6	5.1
1990	%	18.1	15.4	21.7	7.5	28.2	18.4	17.6	18.1	18.6	7.3	3.3
1995	%	17.1	14.7	19.8	6.0	24.3	14.3	14.1	17.8	17.8	7.0	5.1

NOTE: Only doctorates with definite commitments for employment are included. Foreign locations are excluded. "All Employment Commitments" includes recipients whose employment sector is unreported. Percentages are based on the number of Ph.D.s who reported employment commitments in a specific sector. See technical notes in Appendix C for rates of nonresponse to this question and for further explanation of postgraduation plans.

*"Asians" includes Pacific Islanders. "American Indians" includes Alaskan Natives.
†Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "Other."
‡"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

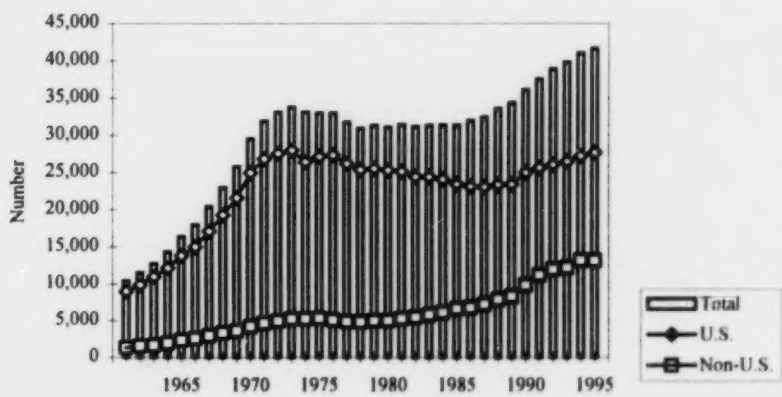
SOURCE: National Research Council, Survey of Earned Doctorates.

THE CONTRIBUTION OF CHINA, INDIA, TAIWAN, AND KOREA TO THE GROWTH OF NON-U.S. PH.D.S, 1985-1995

Introduction

Following a decade of retrenchment, the number of doctorates granted by U.S. universities increased from 31,297 in 1985 to 41,610 in 1995. The increase in the number of degrees awarded to non-U.S. citizens (with temporary or permanent visas) accounted for 64 percent of the annual increases for all Ph.D.s from 1985 to 1995. This growth among non-U.S. Ph.D.s has raised questions about the role of non-U.S citizens in U.S. higher education, the meaning of this "internationalization" of higher education for the national and global economies, and proper federal policy on the financial support of non-U.S. citizens in U.S. graduate programs.

FIGURE 15 Doctorate recipients, total and by citizenship status, 1961-1995.



See Table 17, page 67.

SOURCE: National Research Council, Survey of Earned Doctorates.

This section presents data on non-U.S. citizens and citizens of four countries—China, India, Taiwan, and Korea—that played a central role in the growth of the number of non-U.S. citizens earning doctorates over the last decade. Key findings include:

- The expansion in the number and percentage of Ph.D.s awarded by U.S. universities to non-U.S. citizens from 1985 to 1995 was driven by the number of degrees awarded to citizens of the four leading countries of citizenship among non-U.S. Ph.D.s—China, India, Taiwan, and Korea. In 1985 these four countries accounted for 29 percent of all non-U.S. Ph.D.s, but in 1995 they accounted for 55 percent.

- The largest one-country increase during the decade was among Chinese citizens. Chinese citizens earning Ph.D.s in the U.S. jumped from 137 in 1985 to 2,976 in 1995.

- While U.S. citizens were distributed across broad fields, more than 70 percent of non-U.S. citizens specialized in engineering, physical sciences, or life sciences. Non-U.S. citizens have increasingly comprised large percentages of these fields—almost 60 percent for engineering. Ph.D.s from the four leading non-U.S. countries reinforced the pattern for non-U.S. Ph.D.s, particularly with 42 percent of Taiwanese and 40 percent of Indians in engineering, and 34 percent of Chinese in physical sciences.

- In 1995 U.S. and non-U.S. citizens differed in their sources of financial support for graduate school. Almost 90 percent of non-U.S. citizens reported university support while about 75 percent of U.S. citizens did. By contrast, only about half of non-U.S. Ph.D.s reported personal support while almost 85 percent of U.S. citizens did.

- There were differences among citizens of the leading non-U.S. countries in their sources of support. Nearly all Chinese and Indians reported university support, though the mix of support that Chinese Ph.D.s relied on has changed in the past decade, as government support decreased and personal support increased. Percentages of Taiwanese and Koreans reporting university support were similar to those of non-U.S. Ph.D.s generally. However, 75 percent of Taiwanese and 80 percent of Koreans reported personal support compared to 50 percent of non-U.S. citizens, 26 percent of Chinese, and 31 percent of Indians.

- The percentage of non-U.S. Ph.D.s staying in the U.S. after graduation increased from 54 percent in 1985 to 65 percent in 1995. While the percentage of those with definite commitments for work or study who stay in the U.S. increased from 55 to 65 percent in the past decade, the percentage staying in the U.S. of those still seeking work or study at the time of their degrees increased from 51 percent in 1985 to 66 percent in 1995.

- Behind these general figures for postgraduation location, citizens of the four leading countries have followed different paths. Chinese and Indian Ph.D.s tend to stay in the U.S. after earning their degrees regardless of their visa status, particularly and increasingly so for Chinese. Taiwanese and, especially, Korean Ph.D.s tend to locate abroad and, in 1995, a majority returned home after graduation.

- Doctorate recipients from China represent a special case. Following the Tiananmen Square massacre in 1989, Chinese students sought to stay in the U.S. regardless of visa status and, when possible, sought to obtain a permanent visa allowing them to remain here. This was facilitated by the Chinese Student Protection Act of 1992, which made thousands of Chinese in the U.S. eligible to apply for permanent residency. As a result, the percentage of Chinese Ph.D.s who are permanent U.S. residents increased from 5 percent in 1990 to 80 percent in 1995. (Only 20 percent of other non-U.S. Ph.D.s hold permanent visas.) These changes have had profound effects on the postgraduation location, postgraduation plans, and employment sector of new Chinese Ph.D.s.

- While the number of doctorate recipients with definite commitments for employment increased over the past decade, this growth has been slower than for the overall number of new Ph.D.s. Thus, the percentage of new Ph.D.s with definite commitments for work or study declined during this period.

- In the past decade the most striking feature of the postgraduation status of new Ph.D.s has been the increase in the number and percentage still seeking employment or postdoctoral study at the time their degrees are earned. While this is true of U.S. Ph.D.s as well, it has been even more significant for non-U.S. Ph.D.s, who have been overrepresented among those still seeking work or further study at graduation. Less pronounced, but still notable, has been the increasing number and percentage of new Ph.D.s who have postdoctoral study appointments.

- For citizens of the four leading non-U.S. countries, the percentage seeking work or further study has increased substantially, largely at the expense of the percentage of those with definite employment commitments. The percentage of doctorate recipients with postdoctoral study plans has been relatively stable for citizens of these four countries.

- Overall, the percentage of new Ph.D.s with definite commitments who go directly from doctoral studies to work in academia has varied over the past two decades. The percentage declined from 60 percent in 1975 to 49 percent in 1985 and then rose to 54 percent in 1995. However, the postgraduation plans of U.S. and non-U.S. citizens have differed. An increasing percentage of U.S. Ph.D.s with definite commitments go to work in academia. Driven by a dramatic shift in employment sector among Chinese Ph.D.s, non-U.S. Ph.D.s have shifted over time away from academia toward industry.

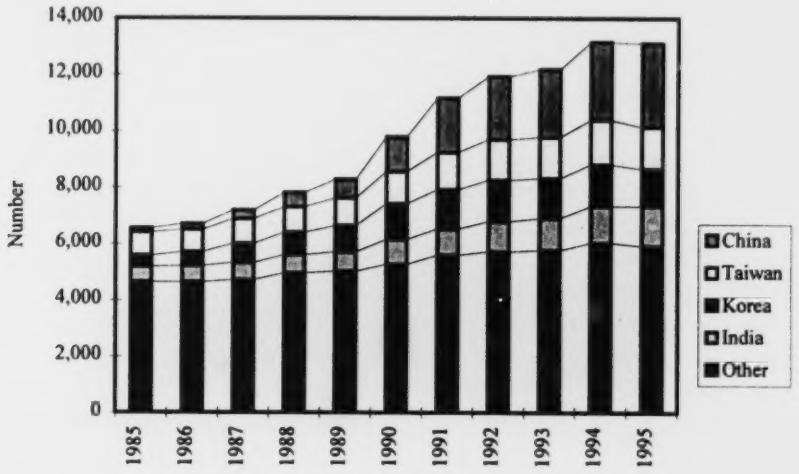
- While a shift toward industry has also been made by Indians, the movement of Chinese Ph.D.s has been dramatic. In 1985, 76 percent of Chinese Ph.D.s with employment commitments had them in academia and 14 percent had them in industry. In 1995, 33 percent had commitments in academia and 60 percent in industry (overwhelmingly in the U.S.). This has surely resulted from the change in visa status and, consequently, postgraduation location for most Chinese. There has been a simultaneous shift in postgraduation location to the U.S. by the increasing number of Chinese still seeking work or study at the time they earned their degrees.

- Not all non-U.S. citizens seek to stay in the U.S. Most Taiwanese and Koreans return home after graduation, whether they have definite commitments or are still seeking. For Taiwanese the percentage with definite commitments in the U.S. has declined over time, while the percentage with academic or postdoctoral study positions abroad have increased. Koreans with definite commitments have shifted away from academic commitments abroad toward postdoctoral study in the U.S. or abroad and toward industry abroad.

- Finally, the number of Ph.D.s that U.S. universities awarded to non-U.S. citizens was lower by 41 in 1995 than in 1994. This may presage a new downward trend among non-U.S. citizens. Other evidence of this downward trend includes a decline in non-U.S. citizens enrolled in U.S. graduate schools from 1992 to 1993 and 1993 to 1994.[1]

The next three sections review trends in the numbers of doctorates, broad fields of doctorates, and financial support for graduate education. The sections that follow these explore characteristics of the labor market for new Ph.D.s by examining postgraduation location by visa status, postgraduation commitments for employment or study, postgraduation employment sectors, postgraduation employment and study by location, and the postgraduation location of doctorates still seeking work or further study at graduation. Finally, data presented here is reviewed by country.

FIGURE 16 Non-U.S. citizens earning doctorates from U.S. colleges and universities, by country of citizenship, 1985-1995.



See Table 19, page 69.

SOURCE: National Research Council, Survey of Earned Doctorates.

Number of Doctorates

The number of Ph.D.s awarded annually by U.S. colleges and universities has increased by one-third from 31,297 in 1985 to 41,610 in 1995. Significant growth in the number of non-U.S. Ph.D.s—particularly Ph.D.s from China, India, Taiwan, and Korea—propelled this growth. From 1994 to 1995, though, the overall number of non-U.S. Ph.D.s declined by 41, suggesting a new trend. (See Tables 17, 18, and 19, pages 67, 68, and 69.)

- From 1985 to 1995, the annual number of U.S. citizens earning Ph.D.s grew by almost one-fifth, but the number of non-U.S. citizens earning Ph.D.s doubled from 6,551 in 1985 to 13,113 in 1995. As a result, the percentage of all Ph.D.s that U.S. universities awarded to non-U.S. citizens increased from 22 percent in 1985 to 32 percent in 1995.

- As shown in Figure 16, rapid increases in the number of doctorates awarded to citizens of the four leading countries for non-U.S. citizens in 1995—China, India, Taiwan, and Korea—have fueled this overall increase. The number of Ph.D.s awarded to citizens of these countries grew almost fourfold from 1,904 in 1985 to 7,188 in 1995.

- The number of new doctorates from China has been a driving force. China has emerged as the leading country among non-U.S. Ph.D.s and the growth among Chinese Ph.D.s accounted for 43 percent of the growth among non-U.S. Ph.D.s during the last decade. The number of Chinese Ph.D.s grew from 137, or 2 percent of all non-U.S. Ph.D.s, in 1985 to 2,976, or 23 percent of all non-U.S. Ph.D.s, in 1995. The number of Indian, Taiwanese, and Korean Ph.D.s together grew from 27 percent of non-U.S. Ph.D.s in 1985 to 32 percent in 1995.

- Data for 1995 indicate a potential new trend. While the number of non-U.S. Ph.D.s from China and India increased, the number from Taiwan and Korea dropped by 92 and 170, respectively, from 1994. These declines contributed to an overall decline among non-U.S. Ph.D.s of 41 in 1995. This first decline for non-U.S. Ph.D.s since the mid-1970s may presage a new downward trend among non.-U.S. Ph.D.s as graduate enrollments for non-U.S. citizens have also declined for the last three years.

Field of Doctorate

While U.S. citizens were distributed across broad fields of study, more than 70 percent of non-U.S. citizens received their doctorates in engineering, physical sciences, or life sciences. As a result, non-U.S. citizens have increasingly comprised large percentages of these fields—a majority in the case of engineering. The doctorate contribution of the four leading foreign countries reinforced the pattern for non-U.S. Ph.D.s. (See Tables 20, 21, 22, and 23, pages 70, 71, 72, and 73.)

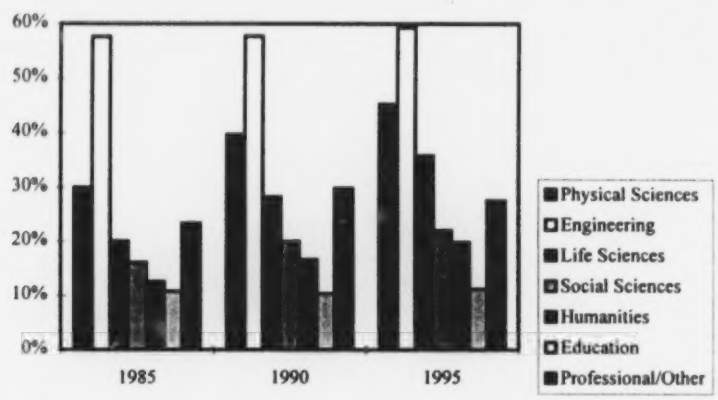
- Non-U.S. citizens are disproportionately concentrated in engineering. While 9 percent of U.S. Ph.D.s received their degrees in engineering in 1995, 27 percent of non-U.S. citizens did. U.S. universities granted almost 60 percent of all engineering doctorates to non-U.S. citizens in 1995. Ph.D.s from Taiwan and India have disproportionate concentrations in engineering at 42 and 40 percent, respectively, that intensified the non-U.S. distribution in that broad field. The percentages of Ph.D.s from China and Korea earning degrees in engineering are close to the non-U.S. average at 26 percent each.

- While 13 percent of U.S. Ph.D.s earned degrees in physical sciences, non-U.S. Ph.D.s have a higher concentration in that broad field as well, at 23 percent. Thirty-four percent of Ph.D.s from China earned degrees in physical sciences, reinforcing non-U.S. representation in that broad field. Chinese Ph.D.s received 15 percent of all doctorates in physical sciences in 1995.

- With 29 percent of all Chinese Ph.D.s in life sciences, Chinese also account for 11 percent of all Ph.D.s in that broad field. This concentration brought the percentage of non-U.S. Ph.D.s in that broad field slightly above the percentage non-U.S. of Ph.D.s generally.

- Koreans were more distributed across broad fields. While they approximated the average for all non-U.S. Ph.D.s in engineering and physical sciences, they had less than the average for non-U.S. Ph.D.s in life sciences (14 percent versus 21 percent) and more representation in the social sciences (16 percent versus 11 percent) and professional/other fields (11 percent versus 5 percent).

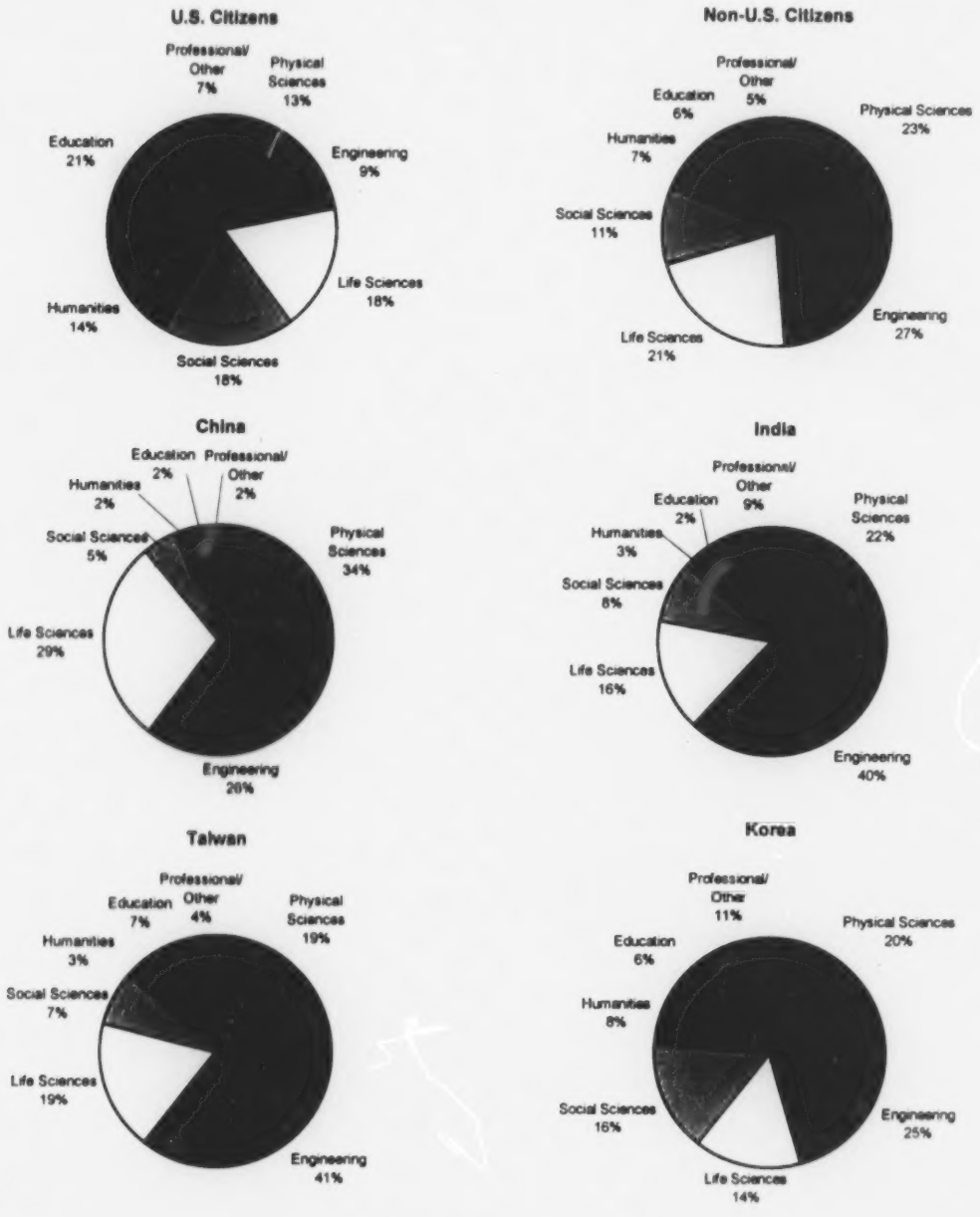
FIGURE 17 Percentage of doctorates awarded to non-U.S. citizens, by broad field, 1985, 1990, 1995.



See Table 20, page 70.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 18 Doctorate recipients by citizenship status or country of citizenship and distribution across broad fields, 1995.



NOTE: Percentages here add to 100 percent, while percentages in text and tables may not due to rounding.
See Table 22, page 72.
SOURCE: National Research Council, Survey of Earned Doctorates.

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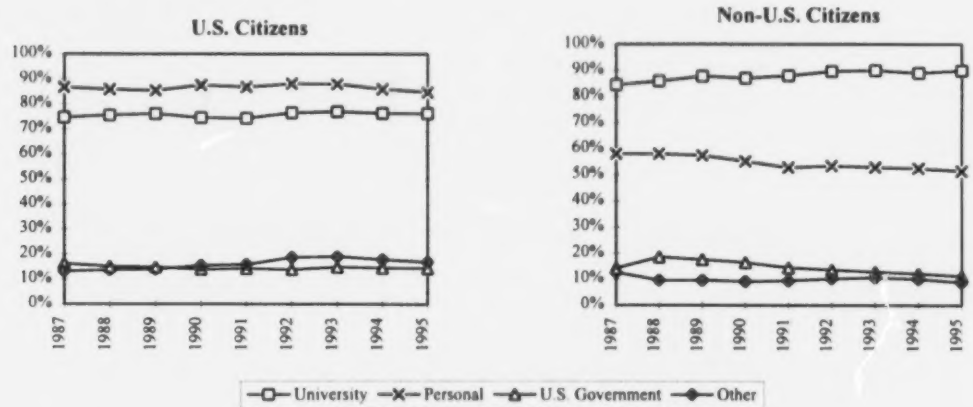
Financing Graduate Education

In 1995 U.S. and non-U.S. Ph.D.s differed in their means of financial support for graduate school. Moreover, there were notable differences among citizens from the four leading non-U.S. countries in the financial support that they relied on. Chinese and Indian Ph.D.s relied largely on university support, while Taiwanese and Koreans also had personal resources.* Notably, however, the mix of support for Chinese Ph.D.s has changed in the last decade, with a decrease in the percentage relying on government support and an increase in the percentage relying on personal resources. (See Table 24, page 74.)

- In 1995 almost 85 percent of U.S. citizens reported personal and family support compared to about half of non-U.S. citizens. By contrast, while about three-quarters of U.S. Ph.D.s received financial support from their universities, almost 90 percent of non-U.S. Ph.D.s reported such assistance.

- About 15 percent of U.S. Ph.D.s reported support from the U.S. government, a stable figure over the last 10 years. The percentage of non-U.S. Ph.D.s with support from a foreign government peaked at 19 percent in 1988 and declined to 11 percent in 1995.

FIGURE 19 Sources of support reported by doctorate recipients, by citizenship status, 1987-1995.



NOTE: Research assistantships funded by the federal government are counted as university support. **See Table 24, page 74.**

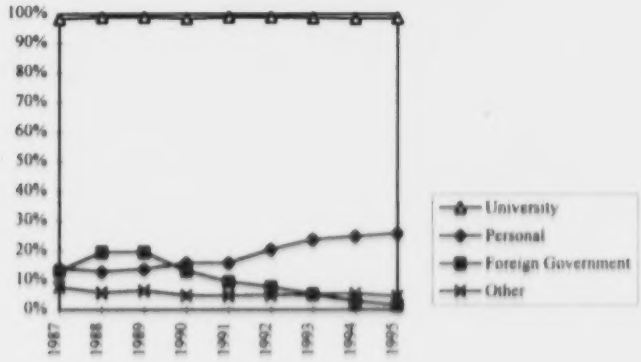
SOURCE: National Research Council, Survey of Earned Doctorates.

* The Survey of Earned Doctorates asks doctorate recipients to list all sources of financial support during graduate school. The percentages noted below are those of all doctorates who reported a source. Doctoral students typically have more than one source of financial support, so categories of support add to more than 100 percent.

- Doctorates from China and India had higher-than-average percentages with university support, at 99 and 98 percent, respectively, in 1995, and lower-than-average percentages with personal support, at 26 and 31 percent, respectively. Very low percentages of Chinese and Indians reported foreign government support in 1995.

- While only 1 percent of Indian Ph.D.s have reported foreign government support since data were first collected in 1987, the percentage of Chinese students reporting foreign government, as well as personal, support has varied. The percentage of Chinese students reporting foreign government support declined from a high of almost 20 percent in 1988 and 1989 to only one percent in 1995. Meanwhile, the percentage of Chinese students reporting personal support increased from 16 percent in 1990 to 26 percent in 1995.

FIGURE 20 Sources of support reported by doctorate recipients who are citizens of China, 1987-1995.

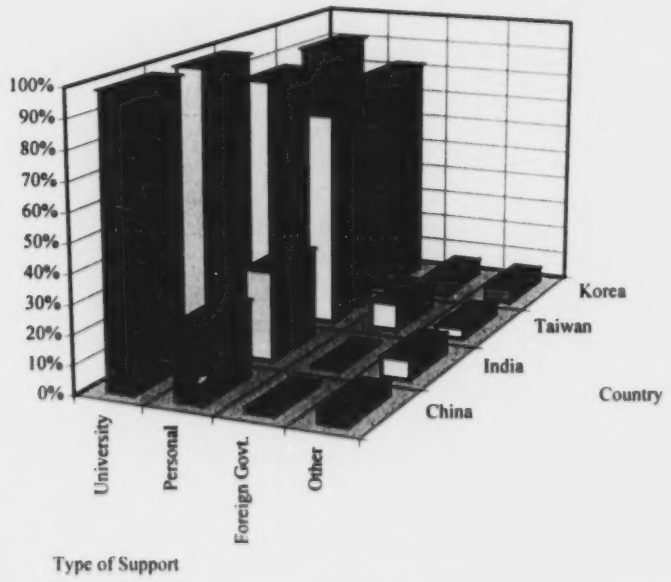


NOTE: Research assistantships funded by the federal government are counted as university support.
See Table 24, page 74.

SOURCE: National Research Council, Survey of Earned Doctorates.

- While the percentages of Taiwanese and Korean Ph.D.s reporting university and government support in the last 10 years are similar to those of non-U.S. Ph.D.s generally, about 75 percent of Taiwanese and 80 percent of Koreans reported personal support in 1995. This compared to 50 percent of non-U.S. Ph.D.s and 26 and 31 percent, respectively, of Chinese and Indians. The 10 percent of Taiwanese and 6 percent of Koreans reporting government support represent higher figures than reported by Chinese and Indian Ph.D.s.

FIGURE 21 Sources of support reported by doctorate recipients who are citizens of the current four leading non-U.S countries of citizenship, 1995.



NOTE: Research assistantships funded by the federal government are counted as university support.
See Table 24, page 74.

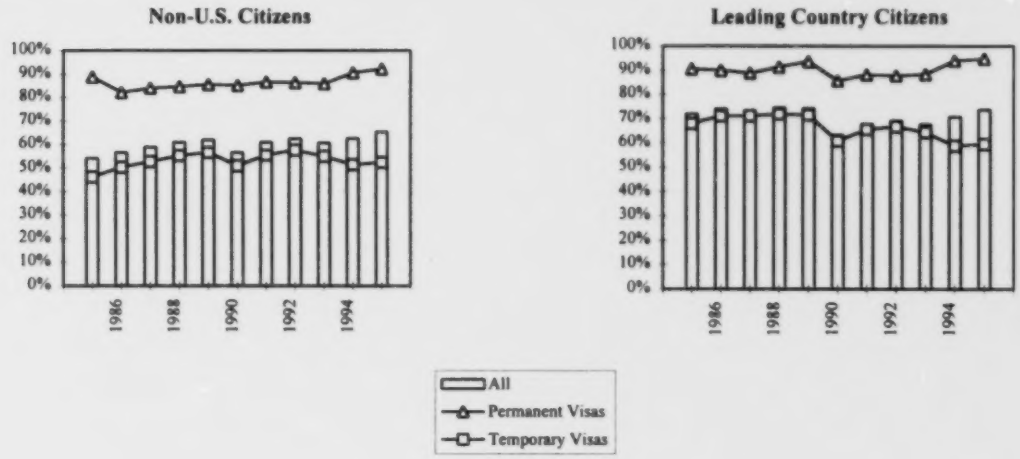
SOURCE: National Research Council, Survey of Earned Doctorates.

Postgraduation Location

The overall percentage of non-U.S. Ph.D.s staying in the U.S. after graduation has increased from 54 percent in 1985 to 65 percent in 1995. As seen in separate sections below, the percentage of non-U.S. Ph.D.s with definite commitments for employment or postdoctoral study who stay in the U.S. increased in the last decade, from 55 percent in 1985 to 65 percent in 1995, while the percentage of non-U.S. Ph.D.s still seeking work or study at time of degree who indicated a U.S. location increased significantly, from 51 percent in 1985 to 66 percent in 1995. (See Tables 25 and 26, pages 76 and 77.)

- As with non-U.S. citizens overall, the percentage who stay in the U.S. increased for each visa category over the last 10 years, rising from 46 to 52 percent for temporary visa holders and from 89 to 92 percent for permanent visa holders. The percentage for citizens of the four leading non-U.S. countries considered together have been consistently higher.

FIGURE 22 Percentage of doctorate recipients indicating postgraduation location in the United States, for non-U.S. citizens and citizens of leading non-U.S. countries of citizenship, by visa status, 1985-1995.



See Table 25, page 76.

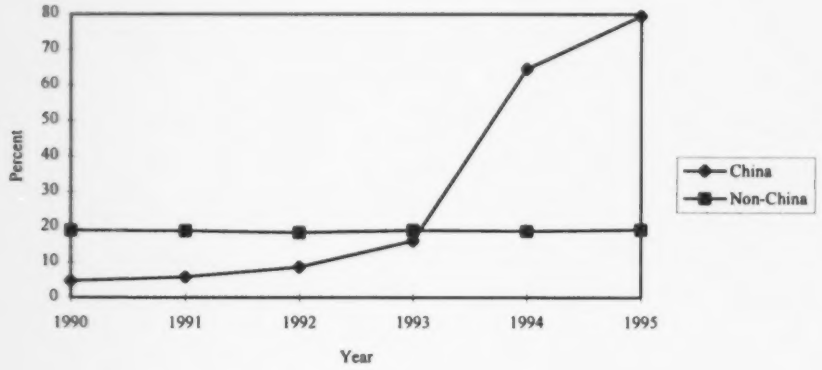
SOURCE: National Research Council, Survey of Earned Doctorates.

Behind these general figures, however, there are differences among and changes for citizens of the four leading non-U.S. countries. In general, Indians and Chinese have tended to stay in the U.S. after earning their degrees regardless of their visa status, particularly and increasingly for Chinese Ph.D.s. Korean and Taiwanese Ph.D.s, however, increasingly locate abroad, presumably at home; in 1995 a majority of Ph.D.s from Korea and Taiwan did.

- High percentages of Chinese Ph.D.s have stayed in the U.S. because of the economic opportunities here and problems associated with reintegration into the Chinese labor force of Chinese Ph.D.s who have studied abroad. This tendency to stay in the U.S. was strengthened by the 1989 Tiananmen Square massacre, following which the percentage of Chinese with temporary visas seeking to stay in the U.S. increased from 86 percent in 1990 to 94 percent by 1992.

- At the same time, Chinese students began obtaining permanent visa status, when possible. This was facilitated by the Chinese Student Protection Act of 1992, which made thousands of Chinese in the U.S. eligible to apply for permanent residency in the U.S. on July 1, 1993. As a result, the percentage of Chinese Ph.D.s who are permanent residents increased from 5 percent in 1990 to 80 percent in 1995. By contrast, only about 20 percent of other non-U.S. Ph.D.s hold permanent visas. Chinese Ph.D.s with permanent visas have almost universally located in the U.S. after graduation since 1986.

FIGURE 23 Percentage of Ph.D.s who are permanent residents, for citizens of China and for non-U.S. citizens exclusive of China, 1990-1995.



See Table 26, page 77.

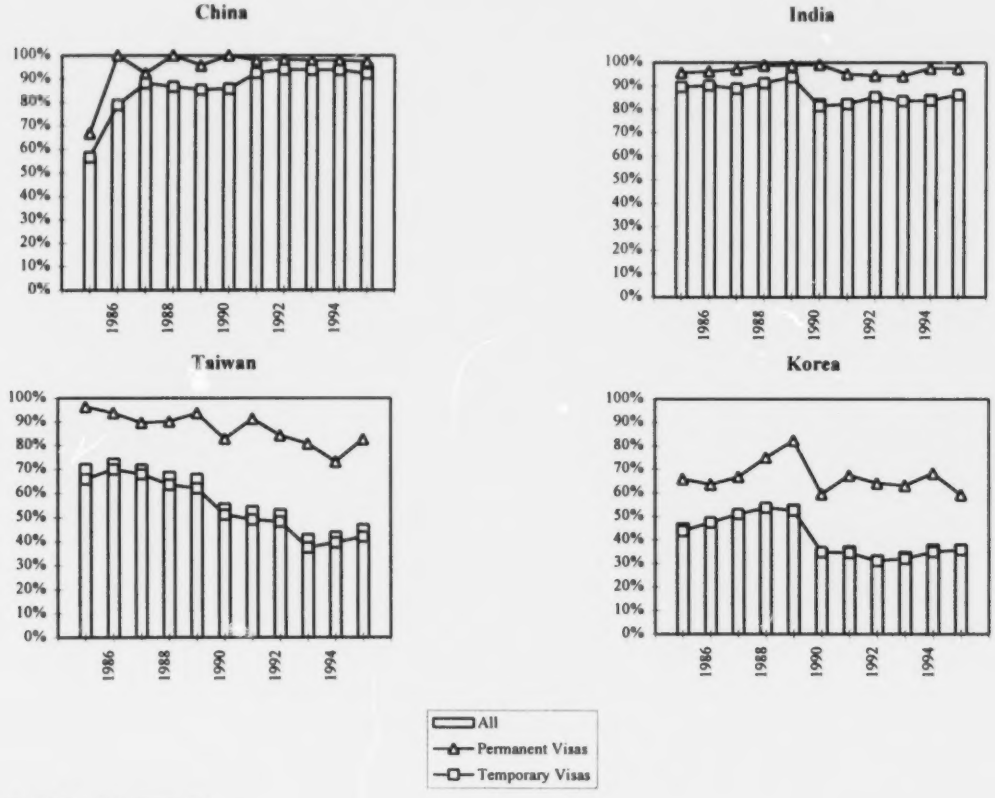
SOURCE: National Research Council, Survey of Earned Doctorates.

- Indians have stayed in the U.S. for some period of time following graduation at percentages that are above the non-U.S. average. Overall, the percentage of Indians remaining in the U.S. after graduation has been at or near 90 percent over the past decade. In 1995, 97 percent of Indian Ph.D.s with permanent visas and 86 percent of temporary visa holders indicated an intention to stay here following graduation.

- The percentage of Taiwanese staying in the U.S. declined over the past decade from 72 percent in 1985 to 47 percent in 1995. The percentage locating in the U.S. has also decreased for Taiwanese in each visa category: the percentage with permanent visas staying in the U.S. decreased from 96 percent in 1985 to 83 percent in 1995; the percentage with temporary visas staying in the U.S. decreased from 66 to 42 percent from 1985 to 1995.

- Koreans have been even more apt to locate abroad. The percentage of Koreans staying in the U.S. declined over the past decade from 47 percent in 1985 to 38 percent in 1995. The percentage locating in the U.S. has also decreased for Koreans in each visa category: the percentage with permanent visas staying in the U.S. decreased from 66 percent in 1985 to 59 percent in 1995; the percentage with temporary visas staying in the U.S. decreased from 44 to 36 percent from 1985 to 1995.

FIGURE 24 Percentage of doctorate recipients indicating postgraduation location in the United States, for citizens of current four leading non-U.S. countries of citizenship, by visa status, 1985-1995.



See Table 25, page 76

SOURCE: National Research Council, Survey of Earned Doctorates.

Postgraduation Commitments

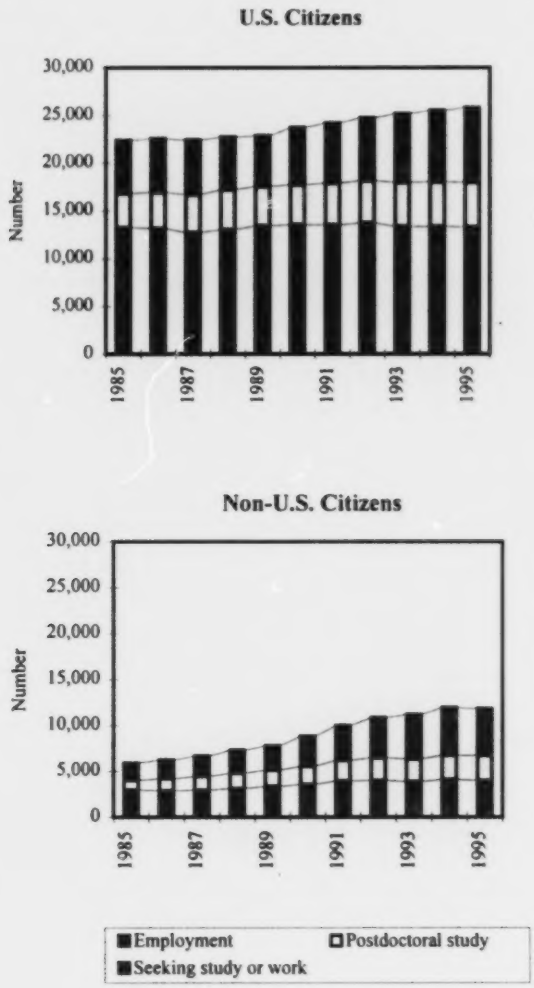
In the past decade the most striking characteristic of the postgraduation status of new Ph.D.s has been the increase in the number and percentage of doctorates still seeking employment or postdoctoral study at the time their degrees are earned. While this is true of U.S. Ph.D.s as well, it has been even more pronounced for non-U.S. Ph.D.s, who have been disproportionately represented among those still seeking work or further study at graduation. Less striking but still notable has been the increasing number and percentage of new Ph.D.s who have postdoctoral study appointments. The number of Ph.D.s with employment commitments has been stable for U.S. Ph.D.s and has been increasing for non-U.S. Ph.D.s since 1985, but more slowly than the overall numbers of U.S. and non-U.S. Ph.D.s. (See Table 27, page 78)

- Among U.S. citizens the number of Ph.D.s with employment commitments at graduation remained relatively stable over the past decade at more than 13,000. The number of Ph.D.s with postdoctoral appointments at graduation increased by about one-fifth from more than 3,500 to more than 4,600. Still, as the number of U.S. Ph.D.s grew, the number still seeking employment or postdoctoral study at the time of degree award grew faster. As a result, the percentage of U.S. Ph.D.s seeking work or study increased from 25 percent in 1985 to 30 percent in 1995.

- As the number of non-U.S. Ph.D.s doubled, the number of non-U.S. Ph.D.s with employment commitments at graduation increased by about 30 percent, but the number with postdoctoral appointments and the number seeking work or study each grew by more than 250 percent. The percent of all non-U.S. Ph.D.s seeking work or study at the time of graduation increased from 32 percent in 1985 to 43 percent in 1995. Thus, a disproportionate share of those still seeking work or study at graduation are non-U.S. Ph.D.s.

- The percentage of doctorates seeking work or study at graduation increased for each of the four leading non-U.S. countries, too. The percentage for China increased from 29 percent in 1985 to 46 percent in 1995, for Taiwan from 36 to 52 percent, and for Korea from 37 to 59 percent. The percentage of Indians seeking work or study, however, only increased from 28 to 35 percent and their percentage remained below that for non-U.S. Ph.D.s generally.

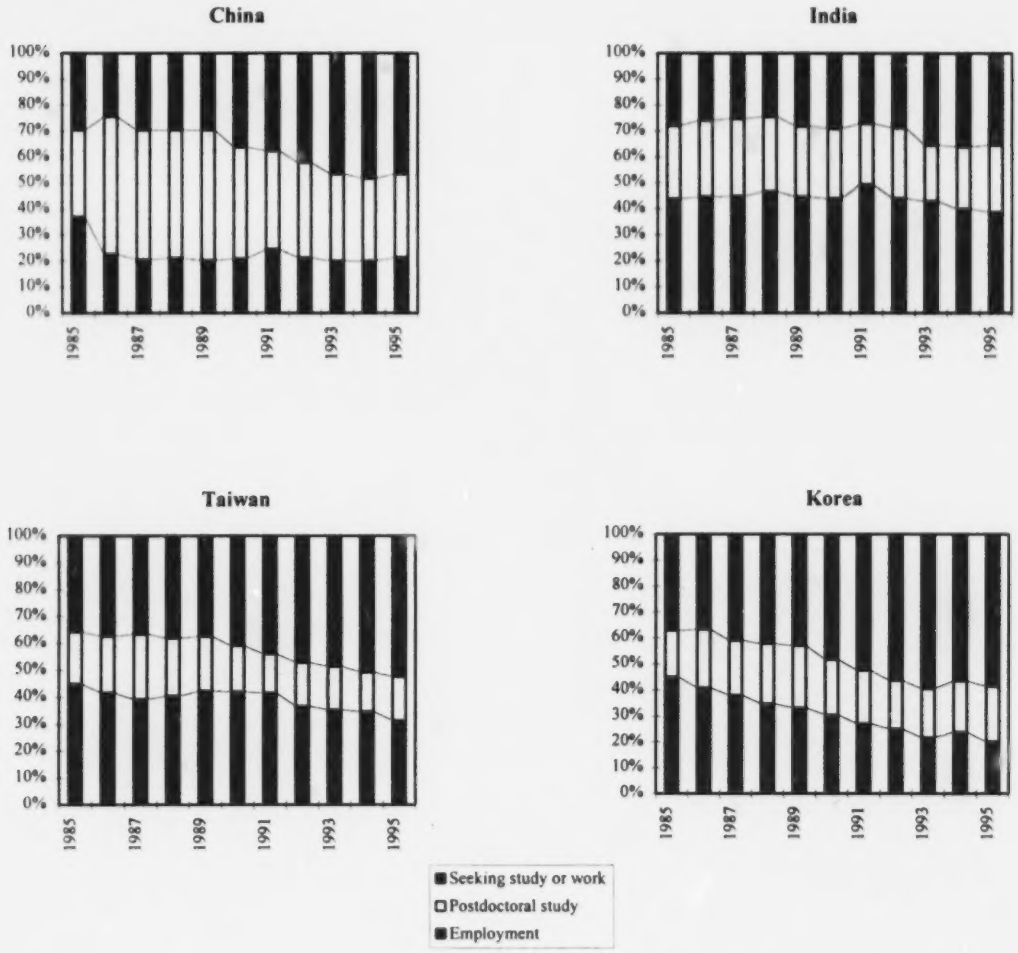
FIGURE 25 Postgraduation status of doctorate recipients, by citizenship status, 1985-1995.



See Table 27, page 78.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 26 Postgraduation status of doctorate recipients for citizens of current four leading non-U.S countries of citizenship, 1985-1995.



See Table 27, page 78.

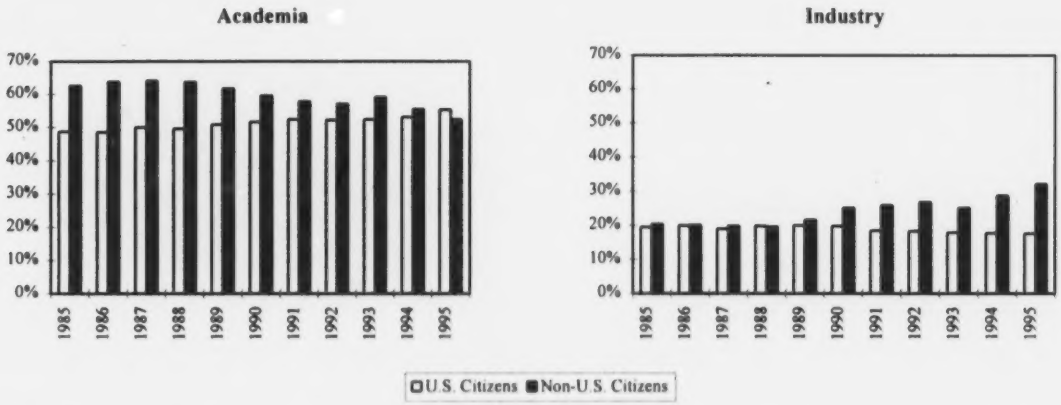
SOURCE: *National Research Council, Survey of Earned Doctorates.

Postgraduation Employment Sector

Overall, the percentage of doctorate recipients with definite commitments for employment who go directly from doctoral studies to work in academia varied over the past two decades: 60 percent in 1975, 49 percent in 1985, and 54 percent in 1995. However, the postgraduation plans of U.S. and non-U.S. citizens differed. An increasing percentage of U.S. Ph.D.s with definite commitments go to work in academia. Driven by a dramatic shift in employment sector among Chinese Ph.D.s., non-U.S. Ph.D.s are increasingly working in industry. (See Table 28, page 82.)

- Over the last decade, the percentage of U.S. Ph.D.s with employment commitments who went to work in academia increased from about 50 to 55 percent. Meanwhile, the percentage of non-U.S. Ph.D.s who went to work in academia decreased sharply, from a high of 64 percent in 1987 to 53 percent in 1995, while the percentage who went to work in industry increased from 20 percent in 1985 to 32 percent in 1995.

FIGURE 27 Percentage of U.S. and non-U.S. citizen doctorate recipients with employment commitments, for academia and industry, 1985-1995.



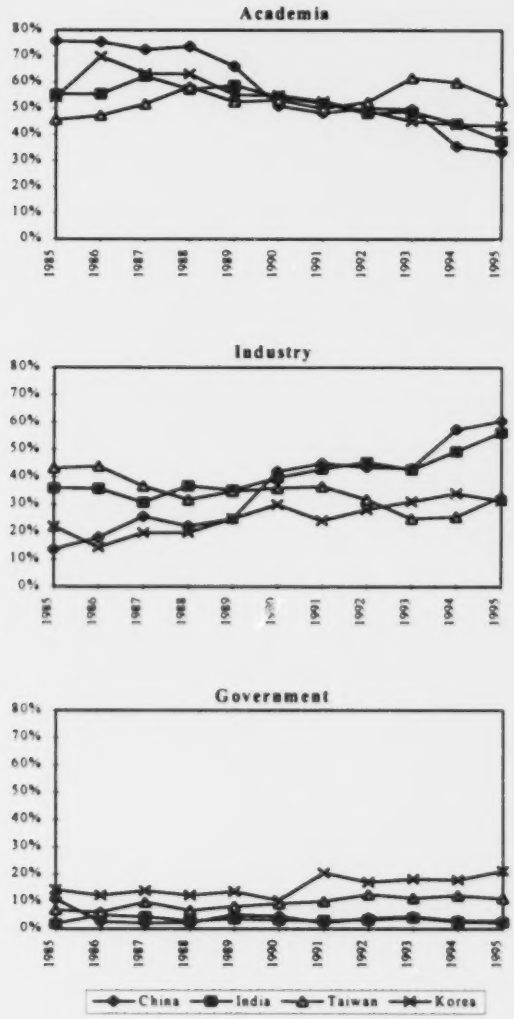
See Table 28, page 82.

SOURCE: National Research Council, Survey of Earned Doctorates.

- Over the past decade, non-U.S. Ph.D.s with employment commitments generally shifted employment sectors away from academia toward industry. Ph.D.s from China reinforced the trend: 76 percent of Chinese with employment commitments went to work in academia in 1985 as compared to 33 percent in 1995, while the percentage of those with commitments in industry increased from 14 to 60 percent during the same period. This is due to the large shift from temporary to permanent visa status for Chinese Ph.D.s since 1989. The trends were similar, though less pronounced, for Indians.

- Koreans also shifted away from academe toward industry but showed an additional growth in the percentage with commitments in government. Taiwanese moved in the opposite direction. The percentage with commitments in academe increased from 46 to 53 percent from 1985 to 1995, while the percentage in industry declined from 43 to 33 percent. As with Koreans, the number of Taiwanese with commitments for work in government increased over the decade, from 7 percent in 1985 to 11 percent in 1995.

FIGURE 28 Percentage of citizens from the current four leading non-U.S. countries of citizenship with employment commitments, for academia, industry, and government, 1985-1995.



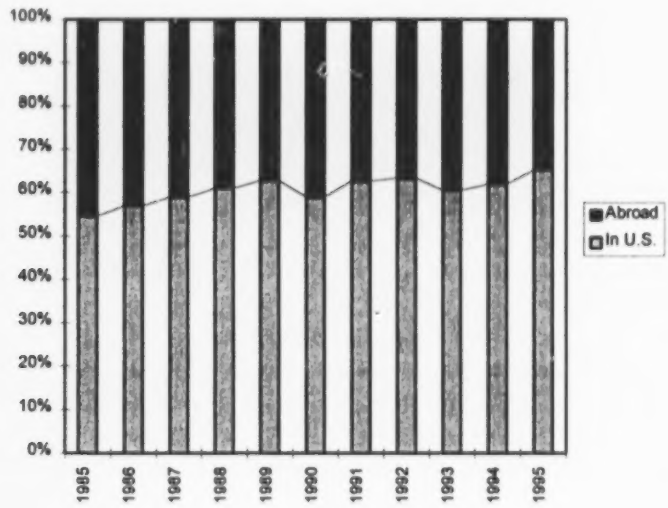
See Table 28, page 82.

SOURCE: National Research Council, Survey of Earned Doctorates.

Postgraduation Employment and Postdoctoral Study by Location

The percentage of non-U.S. citizens with definite commitments for employment or postdoctoral study who stay in the U.S. after graduation increased from 55 percent in 1985 to 65 percent in 1995. However, there were, again, differing patterns for citizens of the four leading non-U.S. countries. Chinese and Indian Ph.D.s with definite commitments for employment or postdoctoral study planned to remain in the U.S. Koreans generally split their commitments between the U.S. and positions abroad over the past decade. Taiwanese with commitments have increasingly secured them abroad. A small, but potentially significant, trend is the growth of non-U.S. postdoctoral study positions among Korean and Taiwanese Ph.D.s. (See Tables 29, 30, and 31, pages 85, 91, and 92.)

FIGURE 29 Non-U.S. citizen doctorate recipients with definite commitments for postgraduation employment or postdoctoral study, by location in U.S. or abroad, 1985-1995.



See Table 29, page 85.

SOURCE: National Research Council, Survey of Earned Doctorates.

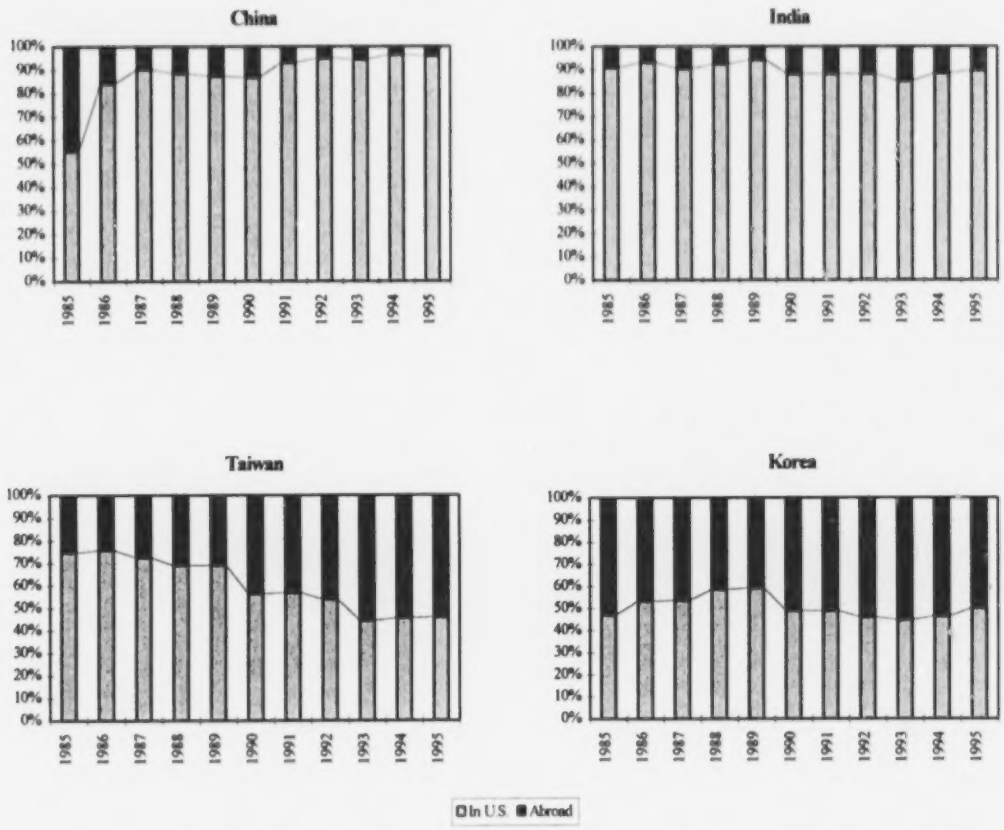
- For Chinese Ph.D.s with definite commitments in 1995, the largest portion—almost 60 percent—planned postdoctoral study in the U.S. The second largest group—at more than 20 percent—secured positions in industry in the U.S. This latter group grew from about 5 percent in 1985. Meanwhile, the proportion with academic positions, especially abroad, declined from 1985 to 1995. These changes resulted from the shift among Chinese from temporary to permanent visa status, which has allowed the overwhelming majority of Chinese to stay in the U.S. following graduation.

- Indians also tend to have commitments in the U.S. but these commitments are more widely spread over different sectors. The largest group in 1995—at about 35 percent—had postdoctoral study positions in the U.S. The second-largest group had positions in U.S. industry, a group that increased from 21 percent of Indian Ph.D.s in 1985 to 32 percent in 1995. The third-largest group had positions in U.S. education institutions, though their percentage declined from 29 to 19 percent between 1985 and 1995.

- Over the past decade, about half of Koreans with definite employment or postdoctoral study commitments had them in the U.S. (although 71 percent of Koreans seeking work or study at the time they earned their degrees in 1995 were doing so abroad, as noted below). However, Koreans with definite commitments shifted from academic positions abroad to postdoctoral study positions in the U.S., postdoctoral study abroad, and industry abroad. The percentage of Koreans with academic positions abroad decreased from 27 to 12 percent from 1985 to 1995. At the same time, the portions of Koreans securing postdoctoral study positions in the U.S. and abroad rose by about 10 percentage points each. The percentage of Korean Ph.D.s with commitments to work in industry abroad also increased from 6 to 12 percent.

- The percentage of Taiwanese doctorates with academic, industry, or postdoctoral study positions in the U.S. declined, while the percentage with academic positions abroad increased from less than 20 percent in 1985 to almost 30 percent in 1995 and the percentage with postdoctoral study positions abroad increased from 1 percent in 1985 to 10 percent in 1995.

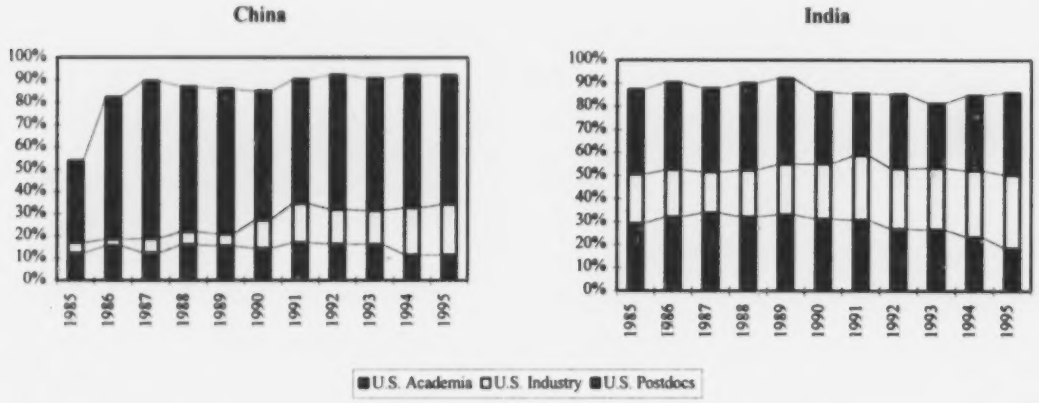
FIGURE 30 Doctorate recipients from the current four leading non-U.S. countries of citizenship with postgraduation commitments for employment or postdoctoral study, by postgraduation location, 1985-1995.



See Table 29, page 85.

SOURCE: National Research Council, Survey of Earned Doctorates.

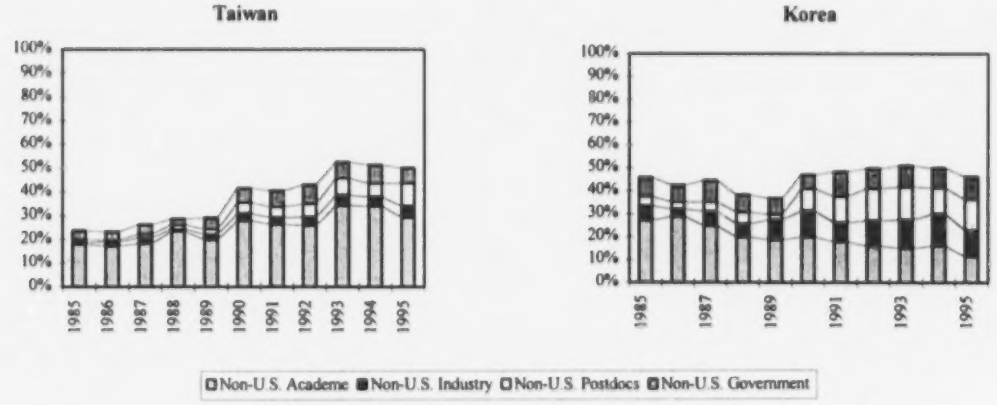
FIGURE 31 Percentage of doctorate recipients from China and India with postgraduation commitments who had academic employment, industrial employment, or postdoctoral study plans in the United States, 1985-1995.



See Table 29, Page 85.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 32 Percentage of doctorate recipients from Taiwan and Korea with postgraduation commitments who had academic employment, industrial employment, non-U.S. government employment, or postdoctoral study plans abroad, 1985-1995.



See Table 29, page 85.

SOURCE: National Research Council, Survey of Earned Doctorates.

Seeking Employment or Postdoctoral Study by Location

As seen above, the percentage of non-U.S. Ph.D.s with employment or postdoctoral study commitments at the time the doctorate is earned who stay in the U.S. increased from 55 to 65 percent in the past decade. Meanwhile, the percentage seeking in the U.S. of non-U.S. Ph.D.s who are still seeking commitments at graduation increased substantially from 51 percent in 1985 to 66 percent in 1995. Increasing numbers of Chinese Ph.D.s seeking work or study in the U.S. reinforced this tendency. Taiwanese and Korean Ph.D.s, however, have increasingly sought work or study abroad. (See Table 32, page 93.)

- In 1985, 51 percent of non-U.S. Ph.D.s who were seeking postgraduation commitments were doing so in the U.S., while in 1995, 66 percent were. The percentage of Chinese doctorates seeking work or postdoctoral study in the U.S. at the time of graduation has reinforced this overall increase in the percentage of non-U.S. Ph.D.s seeking work or study in the U.S. at time of degree. Chinese Ph.D.s seeking work or study in the U.S. as a percentage of all Chinese Ph.D.s still seeking at graduation increased from about 64 percent in 1985 to 97 percent in 1995. This resulted from the dramatic increase in the number and percentage of Chinese with permanent visas who stay in the U.S. and thereby increased the number of Ph.D.s in the U.S. labor market for their fields of concentration.

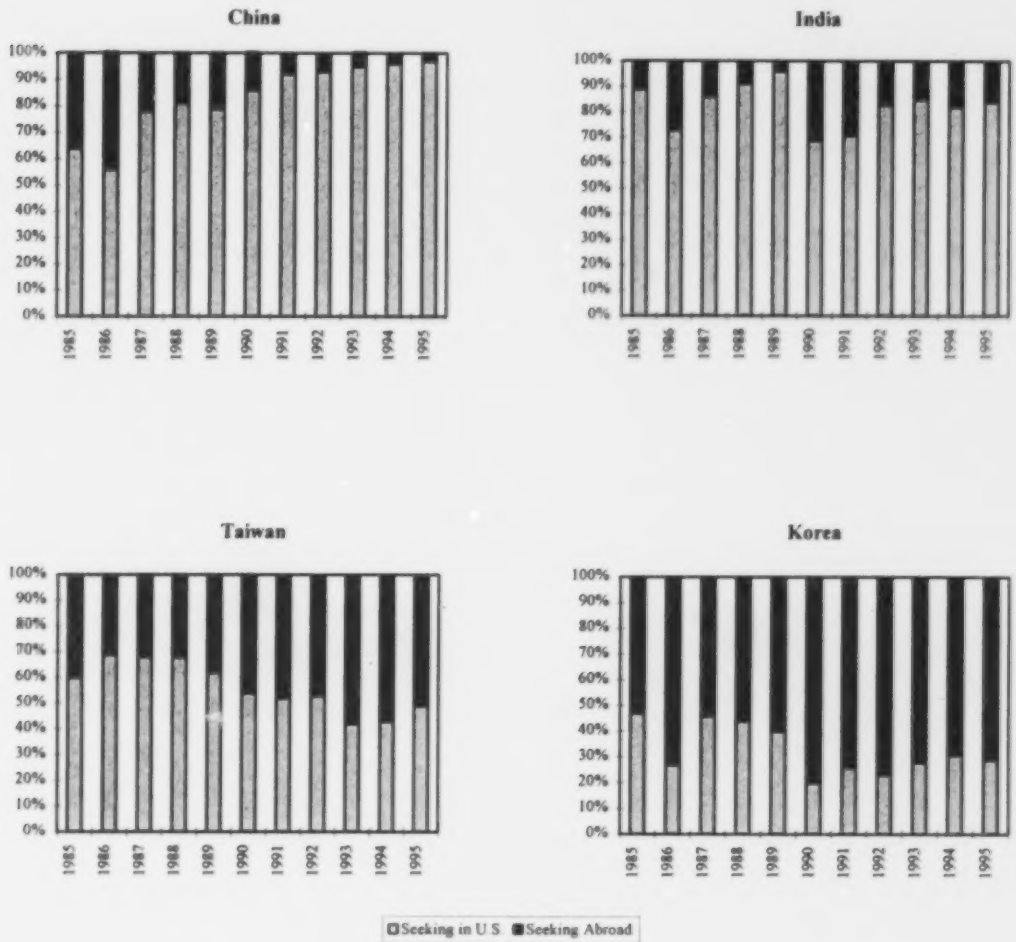
- The percentage seeking work or further study in the U.S. for Ph.D.s from the four leading countries combined has been fairly stable, but this has resulted from two contradictory trends. Chinese Ph.D.s, as noted, increasingly sought commitments in the U.S. as has been the case for Indian Ph.D.s since 1990. By contrast, doctorates from Taiwan and Korea had high and increasing percentages seeking abroad, presumably at home. The percentage of Koreans seeking work or further study abroad of all Koreans still seeking at graduation, for example, began at 53 percent in 1985, increased to 80 percent in 1990, and ended at 71 percent in 1995.

FIGURE 33 Non-U.S. citizen doctorate recipients seeking postgraduation employment or postdoctoral study, by location in U.S. or abroad, 1985-1995.

See Table 32, page 93.

SOURCE: National Research Council, Survey of Earned Doctorates.

FIGURE 34: Citizens of leading non-U.S. countries of citizenship seeking postgraduation employment or postdoctoral study, by location in U.S. or abroad, 1985-1995.



See Table 32, page 93.

SOURCE: National Research Council, Survey of Earned Doctorates.

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Summary and Discussion

The number of doctorates awarded annually by U.S. colleges and universities grew by one-third from 1985 to 1995. During that period, the number of doctorates granted to non-U.S. citizens doubled, the growth in non-U.S. citizens accounting for almost two-thirds of the growth in the total number of doctorates awarded. The increase among non-U.S. citizens, moreover, was spurred by rapid increases in the numbers of doctorates awarded to citizens of the four leading countries of origin among non-U.S. citizens—China, India, Taiwan, and Korea. In 1985 those countries accounted for 29 percent of non-U.S. citizens receiving Ph.D.s in the U.S.; in 1995 they accounted for 55 percent. The number of Ph.D.s awarded to citizens of China, in particular, was critical, growing from 137, or 2 percent of all non-U.S. citizens, in 1985 to 2,976, or 23 percent of all non-U.S. Ph.D.s, in 1995.

Each of these four countries is key—due to country size and/or pace of economic growth—to the rapid development and industrialization of east and south Asia. Russell Cheetham, vice president for East Asia at the World Bank, called this growth "a defining event for the world economy" in the late twentieth century and the growing numbers of citizens from these four countries attaining doctorates in the U.S. has simultaneously become a key characteristic of U.S. higher education at the end of the twentieth century. [2]

While these four countries are significant in both the industrialization of Asia and the growing numbers of non-U.S citizens receiving Ph.D.s in the U.S., the economies, policies, and education systems of these four countries differ substantially enough from one another that they generate remarkably different trends among their citizens in numbers, fields, sources of financing for graduate education, employment status, and whether they intend to stay in the U.S. following graduation. These differences can be summarized as follows:

1. China and India:

- Doctorates from China and India continue to grow in number; have high concentrations in the physical and life sciences and engineering; receive higher-than-average levels of university support and lower-than-average foreign government support; stay in the U.S. for some time after receiving their Ph.D.s, regardless of visa status; have growing numbers and percentages seeking work or further study at graduation and, more and more, doing so in the U.S.; and are shifting their job market expectations toward U.S. industry.

- The growth in the number of Chinese attending and receiving doctorates from U.S. colleges and universities has occurred at the same time that China has experienced phenomenal economic growth, at 10 percent or more of gross domestic product annually. Trends among Chinese, though, also track the changing course of China's study-abroad program and recent events in Chinese politics. Initiated in 1978 as part of Deng Xiaoping's "Four Modernizations" program for agriculture, industry, defense, and science, the Chinese study abroad program sent scholars—mainly visiting scholars in nondegree programs—abroad to learn science and technology in more advanced Western

facilities and bring home the knowledge gained to help China develop. In 1982 the government increased the percentage of those sent abroad who were graduate students in degree programs. By 1989, however, the government realized that, by contrast with visiting scholars, graduate students tended to stay in the U.S. after completing their degrees, thereby generating a low return on the government's investment.[3] As one student of the process observed, "The prospects of mismatched positions, low ranks, little funding, and housing problems were strong disincentives to return: the 'push.' Opportunities to save money while working and studying abroad 'pulled' students. The political climate was also a concern for many, especially in 1987 with the purge of Hu Yaobang and several prominent intellectuals and also with the hardline taken against the 1989 democracy movement."[4] In response to this brain drain, or "delayed return problem," the government reduced the proportion of graduate students in its state-financed program in the late 1980s, though at the same time it liberalized its policies on allowing "self-financed" students to go abroad. Despite Chinese "reverse brain drain" policies instituted recently, the number of Ph.D.s from China has continued to increase and they are staying in the U.S. following graduation.[5] In the process, as we have seen, they have also shifted sources of support, relying less on the Chinese government and more on personal and university resources.

- The politics and economy of India have so far generated similar trends. While not as robust as that in China, economic growth in India has recently been substantial, currently at 8 percent annual growth in gross domestic product. In addition, Indian entrepreneurs and government agencies have begun to move beyond India's decades-old import substitution policies to more high-tech and export-driven industries. One result has been the development of an "Indian Silicon Valley" in the Bangalore area and the investment of government funding in software technology parks. Still, this growth is recent and not yet substantial enough to create the level of change and opportunities that would lure Indians earning Ph.D.s in the U.S. back to the subcontinent. Thus, the number of Indians receiving Ph.D.s in the U.S. increased over the past decade and may continue to do so; the large percentage of Indians staying in the U.S. after graduation will likely stay high, at least for some time; and the percentage of Indians seeking positions in the U.S and obtaining them in U.S. industry will likely continue to increase.[6]

2. Taiwan and Korea

- Trends among Ph.D.s from Taiwan and Korea—two of the "Four Dragons" of East Asia—present a contrast to trends among Ph.D.s from China and India. These two countries have experienced longer and higher levels of industrialization to date. Thus, their Ph.D.s have different ties to and opportunities at home. Trends among Ph.D.s from Taiwan and Korea reflect this: citizens of Taiwan and Korea receiving Ph.D.s in the U.S., after substantial increases over the past decade, decreased in number from 1994 to 1995; have—in the case of Korea—a wider distribution among fields of study; are more likely to draw on personal (including family) and foreign government support during their studies; are more apt to return home; have an increasing percentage seeking work or study, though with significantly higher proportions doing so at home; have larger

percentages working in the academic and governmental sectors, respectively; and have increasing percentages with postdoctoral study positions abroad.

- The data on Taiwan indicate recent and continued growth of Taiwanese higher education. Increasing percentages of Taiwanese with definite commitments plan to work in academia abroad, presumably in Taiwan, rising from about 20 percent in 1985 to 34 percent in 1993 and 1994 and 30 percent in 1995. In addition, the percent of Taiwanese with definite commitments who have postdoctoral study appointments abroad grew from 1 percent to 10 percent during the same period. Given this development, the number of Taiwanese seeking Ph.D.s in the U.S. may decline in the future as they increasingly pursue degrees in Taiwan.

- The data on Korean Ph.D.s suggest a more mature educational establishment, the development of which has been a key integrated component of Korea's industrialization strategy. During the late 1980s, when the number of Korean colleges, universities, and graduate schools increased substantially, 20 to 30 percent of all Koreans earning Ph.D.s in the U.S. who had definite commitments had them in academia abroad. While this figure declined into the teens in the 1990s, the percentage of Koreans with commitments for postdoctoral appointments in the U.S. and, significantly, abroad increased. Also, the percentage of Koreans with definite commitments abroad in industry and government likewise increased. Meanwhile, more than 70 percent of all Koreans still seeking postgraduation commitments do so abroad. This confirms that, in contrast to Chinese and Indians, a majority of Koreans still return home. Finally, as with the Taiwanese, the number of Koreans earning Ph.D.s in the U.S. declined from 1994 to 1995. With a mature academic establishment, more and more Koreans, like Taiwanese, may pursue their Ph.D.s at home.[7]

If these trends continue, there may be a leveling off in the growth of non-U.S. Ph.D.s as increases in Chinese and Indians are canceled by decreases among Taiwanese and Koreans. This contrasts with trends among U.S. citizens that indicate an overall increase for the foreseeable future, especially among U.S. minorities. There are, however, two caveats. First, when China takes control of Hong Kong on July 1, 1997, a burgeoning scientific and educational sector in the British colony may both serve the educational needs of Chinese students and attract Chinese Ph.D.s back to China. This could marginally affect the number of Chinese Ph.D.s earning degrees from U.S. universities and may also affect where those earning Ph.D.s in the U.S. seek work or postdoctoral study.[8] Second, other new economic "dragons" in east or south Asia may generate additional growth in the number of non-U.S. citizens enrolling in and receiving doctorates from graduate schools in the United States.

ENDNOTES

[1] National Science Foundation, "Graduate Enrollment in Science and Engineering Decreased by 1 Percent in 1994," Science Resources Studies Division *Data Brief*, vol. 1996, no. 5, July 24, 1996.

[2] Russell Cheetham, "China: The Opportunity: Securing the Opportunities of the Pacific Century," Lecture at the East-West Center, Hawaii, August 8, 1995. Full text can be found at http://www.worldbank.org/html/extdr/ extme/rc1speech.html. See also National Science Foundation, *Human Resources for Science and Technology: The Asian Region*, NSF 93-303 (Washington, D.C., 1993).

[3] Paul Englesberg, "Reversing China's Brain Drain: The Study Abroad Policy, 1978-1993," in John D. Montgomery and Dennis A Rondinelli, eds., *Great Policies: Strategic Innovations in Asia and the Pacific Basin* (Conn.: Praeger Publishers, 1995), p. 100-111.

[4] Englesberg, "Reversing China's Brain Drain," pp. 111. See also David B. Austell, Jr., "Sino-American Educational Exchange: Origins and Issues," *International Education*, vol. 21, no. 2, Spring 1993, pp. 19-41.

[5] Englesberg, "Reversing China's Brain Drain," pp. 111-118; and Arthur Fisher, "A Long Haul for Chinese Science," *Popular Science*, August 1996, pp. 41-42.

[6] Regarding the Indian software industry, see Sunny Singh, "The Upcoming Software Tycoon," *Asian Pacific Economic Review*, Spring 1996, pp. 16-17. For the current state of the Indian economy and its recent growth and prospects, see Ashok Desai, "How Is India Changing?," *World Economic Affairs*, vol. 1, no.1, Summer 1996, pp. 59-63.

[7] Thomas Owen Eisemon and Lauritz Holm-Nielsen, "Developing Capacity for Research and Advanced Scientific Training: Lessons from World Bank Experience" (Washington, D.C.: World Bank, Education and Social Policy Department, March 1995), pp. 14-18. Data on the growth of Korean educational institutions can be found in Alan B. Henkin and Lelia B. Helms, "Higher Education in the Republic of Korea: Seeking Synchronous Systems," *International Education*, vol. 25, no. 1, Fall 1995, p. 22.

[8] "Hong Kong's Pre-1997 Science Boom," *Science*, vol. 272, May 24, 1996, pp. 1090-1091.

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TABLE 17 Doctorates Awarded by U.S. Colleges and Universities, by Citizenship Status, 1958-1995

		U.S. Citizens		Non-U.S. Citizens	
Year	Total	Number	Percent	Number	Percent
1958	8,773	7,753	88.4	875	10.0
1959	9,213	8,065	87.5	1,066	11.6
1960	9,733	8,469	87.0	1,176	12.1
1961	10,413	8,961	86.1	1,306	12.5
1962	11,500	9,841	85.6	1,518	13.2
1963	12,728	10,925	85.8	1,605	12.6
1964	14,325	12,121	84.6	1,931	13.5
1965	16,340	13,772	84.3	2,313	14.2
1966	17,949	14,974	83.4	2,544	14.2
1967	20,403	17,029	83.5	2,924	14.3
1968	22,937	19,229	83.8	3,314	14.4
1969	25,743	21,541	83.7	3,569	13.9
1970	29,498	24,915	84.5	4,148	14.1
1971	31,867	26,758	84.0	4,597	14.4
1972	33,041	27,479	83.2	4,924	14.9
1973	33,755	27,914	82.7	5,172	15.3
1974	33,047	26,343	79.7	5,185	15.7
1975	32,952	27,083	82.2	5,249	15.9
1976	32,946	27,269	82.8	5,023	15.2
1977	31,716	26,119	82.4	4,816	15.2
1978	30,875	25,291	81.9	4,765	15.4
1979	31,239	25,464	81.5	4,907	15.7
1980	31,020	25,222	81.3	4,934	15.9
1981	31,356	25,060	79.9	5,221	16.7
1982	31,111	24,393	78.4	5,432	17.5
1983	31,281	24,360	77.9	5,772	18.5
1984	31,337	24,027	76.7	6,056	19.3
1985	31,297	23,370	74.7	6,551	20.9
1986	31,902	23,086	72.4	6,709	21.0
1987	32,370	22,984	71.0	7,190	22.2
1988	33,501	23,291	69.5	7,817	23.3
1989	34,326	23,400	68.2	8,274	24.1
1990	36,067	24,905	69.1	9,791	27.1
1991	37,522	25,561	68.1	11,169	29.8
1992	38,856	25,977	66.9	11,932	30.7
1993	39,771	26,420	66.4	12,189	30.6
1994	41,017	27,129	66.1	13,154	32.1
1995	41,610	27,603	66.3	13,113	31.5

NOTE: Percentages are based on the number of Ph.D.s who reported citizenship. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 18 Top 30 Countries of Origin of Non-U.S. Citizens Earning Ph.D.s at U.S. Colleges and Universities, 1995 (ranked on number of Ph.D.s)

Country	Number	Country	Number
1. China*	2,976	16. Hong Kong	120
2. Taiwan*	1,484	17. France	117
3. India	1,423	18. Italy	116
4. Korea†	1,305	19. Malaysia	113
5. Canada	524	20. Israel	113
6. Germany	306	21. Saudi Arabia	108
7. Japan	232	22. Indonesia	106
8. England	220	23. Spain	102
9. Greece	197	24. Nigeria	99
10. Iran	195	25. Egypt	92
11. Thailand	189	26. Australia	89
12. Turkey	188	27. Sri Lanka	83
13. Brazil	175	28. Argentina	77
14. Mexico	162	29. Jordan	72
15. Pakistan	137	30. The Netherlands	70
		Top 30 Countries of Origin	*11,190*
		Total Countries Reported (146)	*13,029*

NOTE: The total number of non-U.S. citizens who earned doctorates in 1995 was 13,113; nearly all (13,029 Ph.D.s) reported their country of origin. See technical notes in Appendix C for rates of nonresponse to the questions on country of citizenship and citizenship status.

*An additional 13 Ph.D.s indicated "China" as their country of citizenship, but the specific origin could not be determined. Data for these recipients are excluded from this table.
†Includes "Korea" (unspecified). The Democratic People's Republic of Korea (North Korea) does not permit its citizens to study in the United States.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 19 Doctorates Awarded to Citizens of Current Four Leading Countries of Origin of Non-U.S. Citizens, 1985-1995

	China		Taiwan		India		Korea		Total, Leading Countries	
Year	Number	% of Non-U.S. Citizens	Number	% of Non-U.S. Citizens	Number	% of Non-U.S. Citizens	Number	% of Non-U.S. Citizens	Number	% of Non-U.S. Citizens
1985	137	2.1	833	12.7	541	8.3	392	6.0	1,903	29.0
1986	203	3.0	796	11.9	579	8.6	493	7.3	2,071	30.9
1987	306	4.3	873	12.1	602	8.4	681	9.5	2,462	34.2
1988	499	6.4	912	11.7	647	8.3	790	10.1	2,848	36.4
1989	657	7.9	977	11.8	679	8.2	933	11.3	3,246	39.2
1990	1,225	12.5	1,149	11.7	881	9.0	1,259	12.9	4,514	46.1
1991	1,919	17.2	1,321	11.8	924	8.3	1,397	12.5	5,561	49.8
1992	2,238	18.8	1,431	12.0	1,072	9.0	1,473	12.3	6,214	52.1
1993	2,416	19.8	1,456	11.9	1,139	9.3	1,409	11.6	6,420	52.7
1994	2,772	21.1	1,576	12.0	1,289	9.8	1,475	11.2	7,112	54.1
1995	2,976	22.7	1,484	11.3	1,423	10.9	1,305	10.0	7,188	54.8

NOTE: Percentages are based on the total number of non-U.S. citizen Ph.D.s. in each year. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 20 Percent of Doctorates Awarded to Non-U.S. Citizens, by Broad Field, 1985, 1990, 1995

Non-U.S. Citizens	1985	1990	1995
All Fields	21.9	28.2	32.2
Physical Sciences*	28.7	38.1	44.3
Engineering	54.8	54.5	57.9
Life Sciences	19.3	27.5	35.2
Social Sciences	15.2	19.0	21.4
Humanities	12.1	16.1	19.5
Education	10.4	10.0	10.9
Professional/Other	21.8	28.6	26.9

NOTE: Percentages are based on the number of Ph.D.s who reported citizenship and Ph.D. field. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 21 Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, and by Number in and Percent of Broad Field, 1995

Field	Total	U.S. Citizens		Non-U.S. Citizens		Leading Countries	
		No. in field	% of field	No. in field	% of field	No. in field	% of field
All Fields	41,610	27,603	67.8	13,113	32.2	7,188	17.7
Physical Sciences*	6,806	3,652	54.8	3,018	45.2	1,863	27.9
Engineering	6,007	2,382	40.7	3,477	59.3	2,303	39.3
Life Sciences	7,913	4,996	64.2	2,786	35.8	1,552	19.9
Social Sciences	6,623	5,034	78.0	1,418	22.0	584	9.1
Humanities	5,061	3,979	80.2	985	19.8	260	5.2
Education	6,546	5,680	88.8	716	11.2	252	3.9
Professional/Other	2,654	1,880	72.5	713	27.5	374	14.4

Field	China		Taiwan		India		Korea	
	No. in field	% of field	No. in field	% of field	No. in field	% of field	No. in field	% of field
All Fields	2,976	7.3	1,484	3.6	1,423	3.5	1,305	3.2
Physical Sciences*	1,018	15.3	281	4.2	309	4.6	255	3.8
Engineering	771	13.2	616	10.5	572	9.8	344	5.9
Life Sciences	854	11.0	277	3.6	235	3.0	186	2.4
Social Sciences	153	2.4	107	1.7	121	1.9	203	3.1
Humanities	70	1.4	50	1.0	37	0.7	103	2.1
Education	59	0.9	97	1.5	21	0.3	75	1.2
Professional/Other	51	2.0	56	2.2	128	4.9	139	5.4

NOTE: Percentages are based on the total number of Ph.D.s. in each broad field for whom citizenship status is known. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 22 Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, and by Number in and Distribution Across Broad Field, 1995

Field	Total		U.S. Citizens		Non-U.S. Citizens		Leading Countries	
	No. in field	% of field	No. in field	% of field	No. in field	% of field	No. in field	% of field
All Fields	41,610	100.0	27,606	100.0	13,113	100.0	7,188	100.0
Physical Sciences*	6,806	16.4	3,654	13.2	3,018	23.0	1,863	25.9
Engineering	6,007	14.4	2,382	8.6	3,477	26.5	2,303	32.0
Life Sciences	7,913	19.0	4,996	18.1	2,786	21.2	1,552	21.6
Social Sciences	6,623	15.9	5,035	18.2	1,418	10.8	584	8.1
Humanities	5,061	12.2	3,979	14.4	985	7.5	260	3.6
Education	6,546	15.7	5,680	20.6	716	5.5	252	3.5
Professional/Other	2,654	6.4	1,880	6.8	713	5.4	374	5.2

Field	China		Taiwan		India		Korea	
	No. in field	% of field	No. in field	% of field	No. in field	% of field	No. in field	% of field
All Fields	2,976	100.0	1,484	100.0	1,423	100.0	1,305	100.0
Physical Sciences*	1,018	34.2	281	18.9	309	21.7	255	19.5
Engineering	771	25.9	616	41.5	572	40.2	344	26.4
Life Sciences	854	28.7	277	18.7	235	16.5	186	14.3
Social Sciences	153	5.1	107	7.2	121	8.5	203	15.6
Humanities	70	2.4	50	3.4	37	2.6	103	7.9
Education	59	2.0	97	6.5	21	1.5	75	5.7
Professional/Other	51	1.7	56	3.8	128	9.0	139	10.7

NOTE: Percentages are based on "All Fields" in each citizenship or country category. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 23 Citizenship Status of Doctorate Recipients, by Broad Field for Selected Years, 1965-1995

Field/Citizenship	1965	1970	1975	1980	1985	1990	1995
All Fields	16,340	29,498	32,952	31,020	31,297	36,067	41,610
U.S. Citizens	13,772	24,915	27,083	25,222	23,370	24,905	27,603
Non-U.S., Permanent Visas	560	1,576	1,713	1,290	1,324	1,698	4,307
Non-U.S., Temporary Visas	1,753	2,572	3,536	3,644	5,227	8,093	8,806
Unknown Citizenship	255	435	620	864	1,376	1,371	894
Physical Sciences*	3,550	5,628	4,857	4,111	4,531	5,859	6,806
U.S. Citizens	2,972	4,629	3,657	3,072	3,050	3,408	3,652
Non-U.S., Permanent Visas	125	354	349	252	233	293	1,169
Non-U.S., Temporary Visas	402	568	750	688	1,066	1,939	1,849
Unknown Citizenship	51	77	101	99	182	219	136
Engineering	2,074	3,434	3,002	2,479	3,166	4,894	6,007
U.S. Citizens	1,576	2,514	1,716	1,255	1,279	1,957	2,382
Non-U.S., Permanent Visas	138	430	418	299	315	389	954
Non-U.S., Temporary Visas	319	471	815	851	1,419	2,277	2,523
Unknown Citizenship	41	19	53	74	153	271	148
Life Sciences	2,684	4,693	5,026	5,461	5,780	6,604	7,913
U.S. Citizens	2,049	3,766	3,921	4,415	4,465	4,608	4,996
Non-U.S., Permanent Visas	95	242	312	229	190	287	1,059
Non-U.S., Temporary Visas	511	650	689	714	925	1,526	1,727
Unknown Citizenship	29	35	104	103	200	183	131
Social Sciences	2,327	4,566	6,066	5,855	5,765	6,093	6,623
U.S. Citizens	1,976	3,886	5,182	4,992	4,579	4,666	5,034
Non-U.S., Permanent Visas	83	224	214	195	210	245	397
Non-U.S., Temporary Visas	232	399	546	486	666	911	1,021
Unknown Citizenship	36	57	124	182	310	271	171
Humanities	2,530	4,278	5,046	3,872	3,429	3,822	5,061
U.S. Citizens	2,291	3,835	4,492	3,395	2,859	3,093	3,979
Non-U.S., Permanent Visas	74	202	222	136	150	196	336
Non-U.S., Temporary Visas	117	162	225	206	264	420	649
Unknown Citizenship	48	79	107	135	156	113	97
Education	2,736	5,857	7,360	7,586	6,733	6,511	6,546
U.S. Citizens	2,550	5,540	6,803	6,749	5,776	5,635	5,680
Non-U.S., Permanent Visas	26	72	118	112	130	153	215
Non-U.S., Temporary Visas	120	201	347	507	570	501	501
Unknown Citizenship	40	44	92	218	257	222	150
Professional/Other	439	1,042	1,595	1,656	1,893	2,284	2,654
U.S. Citizens	358	745	1,312	1,344	1,362	1,538	1,880
Non-U.S., Permanent Visas	19	52	80	67	96	135	177
Non-U.S., Temporary Visas	52	121	164	192	317	519	536
Unknown Citizenship	10	124	39	53	118	92	61

NOTE: See Table 26 for information related to the changing visa status of non-U.S. citizen Ph.D.s in recent years. See technical notes in Appendix C for rates of nonresponse to the question on citizenship status.

*Includes mathematics and computer sciences.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 24 Sources of Support for Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, 1987-1995

Year	Personal	U.S. Government	Foreign Government	University	Other
	U.S. Citizens				
1987	86.7%	16.2%	0.3%	74.7%	13.1%
1988	85.7	15.1	0.4	75.5	13.6
1989	85.3	14.8	0.5	76.0	13.9
1990	87.5	13.8	0.4	74.4	15.4
1991	86.7	14.3	0.4	74.2	15.9
1992	88.1	13.8	0.5	76.4	18.7
1993	87.9	14.8	0.5	76.9	19.0
1994	86.0	14.5	0.5	76.2	17.7
1995	84.7	14.4	0.5	76.2	16.9
	Non-U.S. Citizens				
1987	58.1%	3.5%	14.3%	84.4%	12.6%
1988	58.1	4.5	18.5	85.8	9.5
1989	57.4	4.1	17.5	87.7	9.5
1990	55.1	3.0	16.4	86.9	9.1
1991	52.8	3.2	14.5	87.9	9.4
1992	53.3	3.0	13.6	89.6	10.2
1993	52.9	3.5	12.8	89.9	10.6
1994	52.4	3.3	12.1	88.9	10.0
1995	51.3	3.5	11.1	89.8	8.8
	China				
1987	14.1%	1.7%	13.1%	98.3%	7.6%
1988	12.9	1.4	19.6	98.8	5.7
1989	13.7	2.0	19.6	98.9	6.4
1990	15.9	0.4	13.2	98.4	4.8
1991	15.9	1.1	9.4	99.0	4.7
1992	20.4	1.0	7.7	99.0	4.9
1993	23.7	1.1	5.3	98.6	5.2
1994	24.8	1.6	2.8	98.4	5.4
1995	25.7	1.8	1.4	98.5	4.5

NOTE: In this table a doctorate recipient is included in each source category that he or she reported. Since doctorates may indicate multiple sources of support, percentages sum horizontally to more than 100 percent. See technical notes in Appendix C for rates of nonresponse to the survey question on sources of support.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 24 Sources of Support for Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, 1987-1995 (*Continued*)

Year	Taiwan				
	Personal	U.S. Government	Foreign Government	University	Other
1987	59.5%	2.1%	6.4%	91.3%	5.7%
1988	65.5	1.7	9.8	92.1	2.7
1989	65.0	2.4	10.9	91.5	3.7
1990	67.9	1.5	11.3	89.7	4.6
1991	70.0	1.5	11.1	87.4	4.0
1992	71.8	1.3	11.4	87.9	3.8
1993	72.2	1.2	9.7	89.8	5.0
1994	75.3	0.7	9.5	87.2	3.9
1995	75.4	1.3	9.7	86.1	3.6

Year	India				
	Personal	U.S. Government	Foreign Government	University	Other
1987	30.7%	1.2%	1.2%	96.9%	5.5%
1988	35.9	2.2	1.4	96.7	5.2
1989	39.4	2.3	1.1	98.2	6.6
1990	37.3	0.5	0.7	97.9	5.0
1991	30.8	1.1	1.0	98.4	6.4
1992	35.6	1.2	1.2	98.0	7.1
1993	33.5	1.4	0.7	98.6	8.0
1994	32.4	1.2	0.7	97.9	8.2
1995	31.1	1.6	0.6	98.4	6.8

Year	Korea				
	Personal	U.S. Government	Foreign Government	University	Other
1987	76.6%	3.8%	6.9%	91.9%	10.4%
1988	79.7	2.1	10.3	94.0	4.8
1989	79.8	2.5	7.8	93.1	6.1
1990	79.5	1.5	7.5	91.5	5.1
1991	79.4	1.2	5.7	93.0	6.0
1992	82.5	1.4	6.0	91.9	5.4
1993	79.0	1.1	6.3	90.6	6.0
1994	80.3	1.4	5.6	90.8	6.5
1995	81.7	1.5	5.5	90.4	5.0

NOTE: In this table a doctorate recipient is included in each source category that he or she reported. Since doctorates may indicate multiple sources of support, percentages sum horizontally to more than 100 percent. See technical notes in Appendix C for rates of nonresponse to the survey question on sources of support.

SOURCE: National Research Council, Survey of Earned Doctorates.

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TABLE 25 Doctorate Recipients Indicating Postdoctoral Location in U.S., Non-U.S. Citizens and Citizens of Leading Countries of Origin, by Visa Status, 1985-1995

	Non-U.S. Citizens			Leading Countries		
Year	All Known Visa Status	Permanent Visas	Temporary Visas	All Known Visa Status	Permanent Visas	Temporary Visas
1985	54.1	88.8	46.2	72.0	90.5	68.0
1986	56.5	82.1	50.3	73.9	90.0	71.0
1987	58.9	84.0	52.7	73.4	88.8	71.1
1988	60.9	84.6	55.2	74.5	91.3	71.9
1989	61.9	85.5	56.6	74.2	93.5	71.5
1990	56.6	85.2	50.9	63.3	85.6	60.8
1991	60.9	86.6	55.5	67.8	88.2	65.5
1992	62.4	86.4	57.5	69.1	87.7	66.7
1993	60.6	85.8	54.9	67.6	88.3	64.3
1994	62.6	90.6	51.4	70.7	93.9	58.8
1995	65.4	92.1	52.4	73.7	94.7	59.5

	China			Taiwan		
Year	All Known Visa Status	Permanent Visas	Temporary Visas	All Known Visa Status	Permanent Visas	Temporary Visas
1985	57.0	66.7	56.6	72.3	96.4	65.8
1986	79.5	100.0	78.9	74.5	93.7	69.9
1987	88.4	92.3	88.1	71.9	89.6	68.0
1988	87.4	100.0	86.6	68.9	90.1	63.6
1989	85.9	95.8	85.4	68.0	93.6	62.2
1990	86.4	100.0	85.8	55.7	82.8	51.2
1991	92.8	97.9	92.5	54.7	91.2	49.0
1992	94.4	98.2	94.0	53.4	84.4	48.2
1993	94.5	97.9	93.9	43.0	80.7	37.4
1994	96.4	97.8	93.7	44.0	73.2	39.5
1995	96.4	97.4	92.2	47.2	82.6	42.0

	India			Korea		
Year	All Known Visa Status	Permanent Visas	Temporary Visas	All Known Visa Status	Permanent Visas	Temporary Visas
1985	90.7	95.7	89.6	47.1	65.8	43.8
1986	91.3	96.2	90.2	49.0	63.6	47.4
1987	90.2	97.0	88.9	52.1	66.7	51.0
1988	92.4	98.8	91.2	55.4	75.0	53.7
1989	94.6	98.8	93.8	54.9	82.2	52.6
1990	84.4	99.1	81.4	36.4	59.4	34.8
1991	84.3	95.0	82.3	37.4	67.3	34.5
1992	86.9	94.4	85.3	33.5	64.0	31.0
1993	85.3	94.2	83.5	34.9	63.0	32.0
1994	86.3	97.5	83.9	38.0	68.3	34.9
1995	87.9	97.4	86.2	38.1	59.0	35.7

NOTE: Percentages are based on the number of Ph.D.s who reported visa status, postgraduation status, and a postdoctoral location. See technical notes in Appendix C for rates of nonresponse to applicable questions.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 26 Visa Status of Ph.D.s from China Versus Other Non-U.S. Citizens, 1990-1995

		1990	1991	1992	1993	1994	1995
Total Non-U.S. Citizens	N	9,791	11,169	11,932	12,189	13,154	13,113
Permanent Visas	%	17.3	16.6	16.6	18.5	28.5	32.8
Temporary Visas	%	82.7	83.4	83.4	81.5	71.5	67.2
Citizens of China	N	1,225	1,919	2,238	2,416	2,772	2,976
Permanent Visas	%	4.7	5.8	8.6	16.1	64.6	79.4
Temporary Visas	%	95.3	94.2	91.4	83.9	35.4	20.6
Other Non-U.S. Citizens	N	8,566	9,250	9,694	9,773	10,382	10,137
Permanent Visas	%	19.1	18.9	18.4	19.1	18.8	19.2
Temporary Visas	%	80.9	81.1	81.6	80.9	81.2	80.8

NOTE: See technical notes in Appendix C for rates of nonresponse to the survey questions on country of citizenship and citizenship status.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 27 Postgraduation Status of Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, 1985-1995

	U.S. Citizens						
	Number				Percent		
Year	Total	Postdoctoral Study	Employment	Seeking	Postdoctoral Study	Employment	Seeking
1985	22,436	3,597	13,225	5,558	16.0	58.9	24.8
1986	22,635	3,785	13,142	5,628	16.7	58.1	24.9
1987	22,523	3,943	12,761	5,705	17.5	56.7	25.3
1988	22,844	4,187	13,021	5,518	18.3	57.0	24.2
1989	22,935	4,104	13,428	5,324	17.9	58.5	23.2
1990	23,811	4,170	13,535	6,027	17.5	56.8	25.3
1991	24,287	4,363	13,504	6,349	18.0	55.6	26.1
1992	24,865	4,416	13,716	6,620	17.8	55.2	26.6
1993	25,269	4,615	13,361	7,216	18.3	52.9	28.6
1994	25,629	4,628	13,383	7,504	18.1	52.2	29.3
1995	25,949	4,644	13,311	7,884	17.9	51.3	30.4
	Non-U.S. Citizens						
	Number				Percent		
Year	Total	Postdoctoral Study	Employment	Seeking	Postdoctoral Study	Employment	Seeking
1985	5,921	1,047	2,977	1,869	17.7	50.3	31.6
1986	6,257	1,320	2,892	2,011	21.1	46.2	32.1
1987	6,702	1,507	2,949	2,198	22.5	44.0	32.8
1988	7,322	1,641	3,152	2,484	22.4	43.0	33.9
1989	7,779	1,765	3,369	2,609	22.7	43.3	33.5
1990	8,837	1,981	3,570	3,251	22.4	40.4	36.8
1991	9,995	2,257	3,940	3,766	22.6	39.4	37.7
1992	10,888	2,462	3,999	4,380	22.6	36.7	40.2
1993	11,210	2,438	3,904	4,827	21.7	34.8	43.1
1994	11,972	2,640	4,101	5,179	22.1	34.3	43.3
1995	11,856	2,719	4,006	5,084	22.9	33.8	42.9

NOTE: This table includes only Ph.D.s whose postdoctoral status is known. "Total" includes those reporting "postdoctoral study", "employment", "seeking", and a small number not shown who reported definite commitments but did not report whether they have employment or postdoctoral study. Percentages are based on "Total". "Seeking" includes doctoral recipients seeking either postdoctoral study or employment. See technical notes in Appendix C for rates of nonresponse to the the applicable survey questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 27 Postgraduation Status of Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, 1985-1995 (*Continued*)

	Leading Countries						
	Number				Percent		
Year	Total	Postdoctoral Study	Employment	Seeking	Postdoctoral Study	Employment	Seeking
1985	1,712	384	752	570	22.4	43.9	33.3
1986	1,917	508	774	625	26.5	40.4	32.6
1987	2,283	631	866	776	27.6	37.9	34.0
1988	2,652	749	976	914	28.2	36.8	34.5
1989	3,028	870	1,079	1,071	28.7	35.6	35.4
1990	4,067	1,100	1,359	1,598	27.0	33.4	39.3
1991	4,915	1,246	1,640	2,021	25.4	33.4	41.1
1992	5,656	1,463	1,677	2,504	25.9	29.6	44.3
1993	5,870	1,412	1,641	2,803	24.1	28.0	47.8
1994	6,425	1,539	1,773	3,097	24.0	27.6	48.2
1995	6,451	1,648	1,718	3,070	25.5	26.6	47.6
	China						
	Number				Percent		
Year	Total	Postdoctoral Study	Employment	Seeking	Postdoctoral Study	Employment	Seeking
1985	108	35	39	31	32.4	36.1	28.7
1986	173	91	39	42	52.6	22.5	24.3
1987	266	132	54	78	49.6	20.3	29.3
1988	441	217	93	130	49.2	21.1	29.5
1989	603	302	122	178	50.1	20.2	29.5
1990	1,074	461	223	388	42.9	20.8	36.1
1991	1,660	629	406	622	37.9	24.5	37.5
1992	2,012	735	427	845	36.5	21.2	42.0
1993	2,166	724	432	1,003	33.4	19.9	46.3
1994	2,478	787	492	1,194	31.8	19.9	48.2
1995	2,634	846	561	1,221	32.1	21.3	46.4

NOTE: This table includes only Ph.D.s whose postdoctoral status is known. "Total" includes those reporting "postdoctoral study", "employment", "seeking", and a small number not shown who reported definite commitments but did not report whether they have employment or postdoctoral study. Percentages are based on "Total". "Seeking" includes doctoral recipients seeking either postdoctoral study or employment. See technical notes in Appendix C for rates of nonresponse to the the applicable survey questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

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TABLE 27 Postgraduation Status of Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, 1985-1995 (*Continued*)

	India						
	Number				Percent		
Year	Total	Postdoctoral Study	Employment	Seeking	Postdoctoral Study	Employment	Seeking
1985	498	140	218	139	28.1	43.8	27.9
1986	539	158	239	138	29.3	44.3	25.6
1987	566	168	252	142	29.7	44.5	25.1
1988	613	176	285	149	28.7	46.5	24.3
1989	634	173	282	177	27.3	44.5	27.9
1990	806	218	354	233	27.0	43.9	28.9
1991	819	192	403	221	23.4	49.2	27.0
1992	990	268	436	284	27.1	44.0	28.7
1993	1,061	230	454	374	21.7	42.8	35.2
1994	1,174	281	467	421	23.9	39.8	35.9
1995	1,286	332	498	453	25.8	38.7	35.2
	Taiwan						
	Number				Percent		
Year	Total	Postdoctoral Study	Employment	Seeking	Postdoctoral Study	Employment	Seeking
1985	746	145	334	267	19.4	44.8	35.8
1986	727	152	303	271	20.9	41.7	37.3
1987	814	197	319	297	24.2	39.2	36.5
1988	843	181	338	319	21.5	40.1	37.8
1989	910	185	384	340	20.3	42.2	37.4
1990	1,024	174	428	418	17.0	41.8	40.8
1991	1,181	170	491	520	14.4	41.6	44.0
1992	1,294	207	475	610	16.0	36.7	47.1
1993	1,344	215	474	654	16.0	35.3	48.7
1994	1,439	209	498	729	14.5	34.6	50.7
1995	1,349	219	422	704	16.2	31.3	52.2

NOTE: This table includes only Ph.D.s whose postdoctoral status is known. "Total" includes those reporting "postdoctoral study", "employment", "seeking", and a small number not shown who reported definite commitments but did not report whether they have employment or postdoctoral study. Percentages are based on "Total". "Seeking" includes doctoral recipients seeking either postdoctoral study or employment. See technical notes in Appendix C for rates of nonresponse to the the applicable survey questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 27 Postgraduation Status of Doctorate Recipients, by Citizenship Status and Leading Non-U.S. Countries of Origin, 1985-1995 (*Continued*)

	Korea						
	Number				Percent		
Year	Total	Postdoctoral Study	Employment	Seeking	Postdoctoral Study	Employment	Seeking
1985	360	64	161	133	17.8	44.7	36.9
1986	478	107	193	174	22.4	40.4	36.4
1987	637	134	241	259	21.0	37.8	40.7
1988	755	175	260	316	23.2	34.4	41.9
1989	881	210	291	376	23.8	33.0	42.7
1990	1,163	247	354	559	21.2	30.4	48.1
1991	1,255	255	340	658	20.3	27.1	52.4
1992	1,360	253	339	765	18.6	24.9	56.2
1993	1,299	243	281	772	18.7	21.6	59.4
1994	1,334	262	316	753	19.6	23.7	56.4
1995	1,182	251	237	692	21.2	20.1	58.5

NOTE: This table includes only Ph.D.s whose postdoctoral status is known. "Total" includes those reporting "postdoctoral study", "employment", "seeking", and a small number not shown who reported definite commitments but did not report whether they have employment or postdoctoral study. Percentages are based on "Total". "Seeking" includes doctoral recipients seeking either postdoctoral study or employment. See technical notes in Appendix C for rates of nonresponse to the the applicable survey questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 28 Doctorate Recipients with Postgraduation Commitments for Employment, by Citizenship Status and Leading Non-U.S. Countries of Origin, and by Employment Sector, 1985-1995

	U.S. Citizens				
Year	Academe*	Government	Industry/Self-Employed	Nonprofit	Other†
1985	48.7%	12.2%	19.5%	8.0%	11.6%
1986	48.5	11.9	20.0	8.0	11.6
1987	50.0	11.0	19.0	8.1	11.8
1988	49.6	11.2	19.8	8.0	11.5
1989	50.8	11.2	20.0	7.5	10.5
1990	51.6	9.9	19.9	7.5	11.1
1991	52.4	9.8	18.5	7.5	11.8
1992	52.2	10.0	18.4	7.5	11.9
1993	52.5	10.3	17.9	6.7	12.6
1994	53.1	9.6	17.8	7.2	12.3
1995	55.3	9.3	17.7	6.9	10.8
	Non-U.S. Citizens				
Year	Academe*	Government	Industry/Self-Employed	Nonprofit	Other†
1985	62.6%	11.5%	20.4%	4.0%	1.6%
1986	63.8	12.0	20.1	2.8	1.4
1987	64.0	11.3	19.8	3.3	1.6
1988	63.7	10.8	19.6	3.8	2.1
1989	61.8	11.2	21.6	4.0	1.4
1990	59.6	10.7	25.2	2.8	1.6
1991	57.8	11.4	25.9	3.2	1.7
1992	57.1	11.4	26.8	3.2	1.5
1993	59.1	10.8	25.1	2.9	2.1
1994	55.6	10.7	28.7	3.2	1.7
1995	52.5	10.0	32.2	3.5	1.7

NOTE: Only doctorates with definite commitments for employment are included. Percentages are based on the number of Ph.D.s who reported employment commitments and a specific sector. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "Other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 28 Doctorate Recipients with Postgraduation Commitments for Employment, by Citizenship Status and Leading Non-U.S. Countries of Origin, and by Employment Sector, 1985-1995 (*Continued*)

	China				
Year	Academe*	Government	Industry/Self-Employed	Nonprofit	Other†
1985	75.7%	10.8%	13.5%	0.0%	0.0%
1986	75.0	2.5	17.5	5.0	0.0
1987	72.5	2.0	25.5	0.0	0.0
1988	73.1	2.2	22.6	0.0	2.2
1989	65.0	5.8	25.0	2.5	1.7
1990	50.7	5.7	41.0	2.2	0.4
1991	48.4	2.2	44.7	4.0	0.7
1992	49.3	4.0	43.9	2.6	0.2
1993	49.5	4.3	43.1	2.6	0.5
1994	35.4	3.1	57.1	3.6	0.8
1995	33.2	2.8	60.3	3.5	0.2
	Taiwan				
Year	Academe*	Government	Industry/Self-Employed	Nonprofit	Other†
1985	45.6%	6.9%	43.2%	3.3%	0.9%
1986	47.2	6.0	43.9	3.0	0.0
1987	51.6	9.6	36.6	1.9	0.3
1988	58.2	6.6	31.6	3.3	0.3
1989	52.5	8.1	34.6	4.5	0.3
1990	53.2	9.1	35.8	1.9	0.0
1991	49.9	9.9	36.4	3.5	0.2
1992	52.4	12.4	31.7	3.0	0.4
1993	61.6	11.1	24.7	2.4	0.2
1994	59.9	12.0	25.4	2.5	0.2
1995	53.0	10.9	32.7	3.2	0.2

NOTE: Only doctorates with definite commitments for employment are included. Percentages are based on the number of Ph.D.s who reported employment commitments and a specific sector. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "Other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 28 Doctorate Recipients with Postgraduation Commitments for Employment, by Citizenship Status and Leading Non-U.S. Countries of Origin, and by Employment Sector, 1985-1995 (*Continued*)

	India				
Year	Academe*	Government	Industry/Self-Employed	Nonprofit	Other†
1985	55.3%	1.8%	35.9%	5.5%	1.4%
1986	55.5	5.0	35.7	2.1	1.7
1987	62.2	4.4	30.7	2.4	0.4
1988	57.2	2.8	36.7	1.4	1.8
1989	58.8	3.6	35.1	2.5	0.0
1990	54.4	3.1	39.6	2.3	0.6
1991	51.9	3.0	42.9	1.5	0.8
1992	48.0	3.2	45.3	2.5	0.9
1993	48.7	4.0	42.6	3.6	1.1
1994	44.1	2.6	49.3	2.8	1.1
1995	37.5	2.2	56.2	2.0	2.0
	Korea				
Year	Academe*	Government	Industry/Self-Employed	Nonprofit	Other†
1985	54.2%	14.2%	21.9%	9.0%	0.6%
1986	69.8	12.2	14.3	3.7	0.0
1987	63.3	13.8	19.6	2.1	1.2
1988	63.1	12.2	19.6	3.9	1.2
1989	55.2	13.5	24.7	5.6	1.0
1990	54.9	10.3	29.8	4.4	0.6
1991	52.6	20.4	24.0	2.4	0.6
1992	48.9	16.9	28.0	4.3	1.8
1993	45.0	18.1	31.0	4.4	1.5
1994	43.8	17.8	33.9	4.6	0.0
1995	43.2	21.1	31.3	4.0	0.4

NOTE: Only doctorates with definite commitments for employment are included. Percentages are based on the number of Ph.D.s who reported employment commitments and a specific sector. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "Other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 29 Doctorate Recipients with Postgraduation Commitments for Employment or Postdoctoral Study, for Citizens of Leading Non-U.S. Countries of Origin, and by Postgraduation Location and Plans, 1985-1995

	Non-U.S. Citizens						
	U.S. Location						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	54.6%	19.6%	11.5%	0.8%	1.6%	20.8%	0.3%
1986	56.9	19.4	10.8	1.0	1.4	24.2	0.2
1987	59.0	18.7	9.8	1.0	1.8	27.4	0.3
1988	61.0	20.9	9.6	0.7	1.7	27.9	0.2
1989	62.8	20.6	10.4	0.7	1.5	29.3	0.3
1990	59.0	18.6	12.2	0.8	1.5	25.8	0.3
1991	62.6	19.0	13.3	0.8	1.8	27.4	0.4
1992	63.3	18.0	12.5	0.9	1.6	29.6	0.7
1993	60.5	16.4	11.3	0.8	1.5	29.6	0.9
1994	61.9	14.3	12.9	0.9	1.7	31.3	0.8
1995	65.1	14.3	15.0	0.8	1.9	32.4	0.8

	Non-U.S. Citizens						
	Location Abroad						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	45.4%	26.9%	2.7%	7.6%	2.5%	5.0%	0.6%
1986	43.1	25.0	2.4	7.4	1.6	5.8	0.8
1987	41.0	23.8	2.8	6.4	1.5	6.1	0.5
1988	39.0	21.3	2.5	6.2	2.1	6.4	0.5
1989	37.2	20.2	3.0	6.4	2.0	5.3	0.4
1990	41.0	20.1	3.5	6.2	1.3	8.5	1.3
1991	37.4	17.3	2.9	6.4	1.3	8.2	1.3
1992	36.7	16.6	3.5	6.1	1.3	8.0	1.3
1993	39.5	19.1	3.7	5.7	1.5	8.3	1.3
1994	38.1	18.6	4.0	5.4	1.1	7.3	1.7
1995	34.9	16.1	3.5	5.0	1.2	7.7	1.5

NOTE: Only doctorates with definite commitments for employment or postdoctoral study are included. "All commitments" includes recipients whose employment sector is unreported. Percentages are based on the total number of Ph.D.s in each country who have definite commitments for employment or postdoctoral study and who reported a postdoctoral location. The percentages for "U.S. location, all commitments and "location Abroad, all commitments" for each year sum to 100 percent. Percentages for sector, study, and unknown sum horizontally to "all commitments". See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

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TABLE 29 Doctorate Recipients with Postgraduation Commitments for Employment or Postdoctoral Study, for Citizens of Leading Non-U.S. Countries of Origin, and by Postgraduation Location and Plans, 1985-1995 (*Continued*)

	Leading Countries						
	U.S. Location						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	73.4%	18.1%	20.6%	1.1%	1.4%	31.9%	0.1%
1986	76.8	20.6	17.2	0.8	1.4	36.6	0.3
1987	75.1	19.4	14.4	1.0	0.6	39.4	0.3
1988	76.3	20.2	13.6	0.8	0.8	40.7	0.3
1989	76.6	19.2	13.3	0.7	0.9	42.4	0.2
1990	70.1	16.8	15.8	0.7	0.9	35.7	0.3
1991	74.6	17.2	18.5	0.8	1.3	36.4	0.4
1992	75.2	16.0	16.3	0.8	1.3	40.2	0.7
1993	72.5	15.0	15.0	1.0	1.2	39.5	0.8
1994	75.0	12.4	18.2	0.9	1.4	41.2	0.9
1995	78.2	11.4	20.8	0.8	1.3	43.0	1.0

	Leading Countries						
	Location Abroad						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	26.6%	16.3%	1.8%	3.3%	2.2%	2.5%	0.5%
1986	23.2	14.3	1.7	3.7	0.8	1.8	0.8
1987	24.9	14.5	2.6	4.1	0.9	2.6	0.1
1988	23.7	13.7	2.3	2.9	1.3	3.1	0.4
1989	23.4	11.9	3.1	3.5	1.7	3.0	0.1
1990	29.9	13.6	3.9	3.4	0.8	7.2	1.1
1991	25.4	11.3	2.6	4.0	0.6	6.1	0.7
1992	24.8	10.2	3.3	3.8	0.7	5.8	1.0
1993	27.5	12.4	3.6	3.5	0.8	6.2	0.9
1994	25.0	11.7	3.7	3.2	0.6	4.7	1.0
1995	21.8	8.7	3.1	2.7	0.6	5.6	1.0

NOTE: Only doctorates with definite commitments for employment or postdoctoral study are included. "All commitments" includes recipients whose employment sector is unreported. Percentages are based on the total number of Ph.D.s in each country who have definite commitments for employment or postdoctoral study and who reported a postdoctoral location. The percentages for "U.S. location, all commitments and "location Abroad, all commitments" for each year sum to 100 percent. Percentages for sector, study, and unknown sum horizontally to "all commitments". See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 29 Doctorate Recipients with Postgraduation Commitments for Employment or Postdoctoral Study, for Citizens of Leading Non-U.S. Countries of Origin, and by Postgraduation Location and Plans, 1985-1995 (*Continued*)

	China						
	U.S. Location						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	55.4%	12.3%	4.6%	1.5%	0.0%	36.9%	0.0%
1986	84.3	15.7	2.8	0.0	1.9	63.9	0.0
1987	90.3	12.3	6.5	0.6	0.0	70.8	0.0
1988	88.5	16.0	5.9	0.7	0.7	65.1	0.0
1989	87.4	15.3	5.4	0.5	0.8	65.1	0.3
1990	87.0	14.4	12.8	1.0	0.9	57.7	0.2
1991	93.3	16.9	17.5	0.8	1.8	55.8	0.4
1992	95.2	16.2	15.7	1.0	0.9	60.4	1.1
1993	94.6	16.1	15.1	1.5	1.1	59.5	1.4
1994	96.5	11.4	21.2	1.1	1.7	59.7	1.5
1995	96.1	11.5	22.7	1.1	1.4	58.0	1.5

	China						
	Location Abroad						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	44.6%	29.2%	1.5%	3.1%	0.0%	9.2%	1.5%
1986	15.7	9.3	0.9	0.9	0.0	3.7	0.9
1987	9.7	7.8	0.0	0.0	0.0	1.9	0.0
1988	11.5	5.6	0.4	0.0	0.0	5.6	0.0
1989	12.6	3.5	1.1	0.3	0.5	7.3	0.0
1990	13.0	2.8	0.5	0.7	0.0	8.8	0.2
1991	6.7	2.1	0.1	0.1	0.1	4.3	0.0
1992	4.8	1.8	0.2	0.4	0.1	2.3	0.1
1993	5.4	2.1	0.5	0.1	0.0	2.6	0.0
1994	3.5	1.8	0.3	0.0	0.0	1.2	0.2
1995	3.9	1.4	0.4	0.0	0.1	1.9	0.2

NOTE: Only doctorates with definite commitments for employment or postdoctoral study are included. "All commitments" includes recipients whose employment sector is unreported. Percentages are based on the total number of Ph.D.s in each country who have definite commitments for employment or postdoctoral study and who reported a postdoctoral location. The percentages for "U.S. location, all commitments and "location Abroad, all commitments" for each year sum to 100 percent. Percentages for sector, study, and unknown sum horizontally to "all commitments". See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 29 Doctorate Recipients with Postgraduation Commitments for Employment or Postdoctoral Study, for Citizens of Leading Non-U.S. Countries of Origin, and by Postgraduation Location and Plans, 1985-1995 (*Continued*)

	Taiwan						
	U.S. Location						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	74.7%	13.8%	28.6%	0.9%	1.2%	30.0%	0.2%
1986	75.8	15.1	26.9	0.7	1.5	31.6	0.0
1987	72.5	12.9	20.5	1.3	0.4	37.1	0.2
1988	69.0	14.0	19.7	1.1	0.7	33.4	0.2
1989	69.1	15.4	20.3	0.6	1.4	31.3	0.0
1990	56.3	10.4	21.1	0.4	0.5	23.7	0.2
1991	56.9	10.9	23.4	0.8	0.9	20.6	0.3
1992	53.8	9.3	17.7	0.4	1.0	24.7	0.6
1993	44.3	7.0	12.2	0.6	0.4	23.9	0.1
1994	45.5	6.9	13.4	0.6	0.6	23.7	0.3
1995	45.8	4.2	15.9	0.5	0.6	24.1	0.5

	Taiwan						
	Location Abroad						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	25.3%	18.0%	0.7%	3.7%	1.4%	1.4%	0.2%
1986	24.2	17.3	1.7	3.5	0.7	0.7	0.2
1987	27.5	18.3	2.4	3.9	0.9	1.7	0.2
1988	31.0	23.4	0.9	2.4	1.7	1.7	0.9
1989	30.9	20.1	2.0	4.9	1.6	2.2	0.0
1990	43.7	27.8	3.0	5.9	0.7	4.5	1.8
1991	43.1	26.4	2.9	6.7	1.7	4.5	0.9
1992	46.2	26.0	3.4	8.0	1.3	5.6	1.9
1993	55.7	34.4	4.4	6.8	1.3	7.0	1.9
1994	54.5	34.0	3.8	7.6	1.3	5.6	2.1
1995	54.2	29.2	4.7	6.4	1.6	9.7	2.7

NOTE: Only doctorates with definite commitments for employment or postdoctoral study are included. "All commitments" includes recipients whose employment sector is unreported. Percentages are based on the total number of Ph.D.s in each country who have definite commitments for employment or postdoctoral study and who reported a postdoctoral location. The percentages for "U.S. location, all commitments and "location Abroad, all commitments" for each year sum to 100 percent. Percentages for sector, study, and unknown sum horizontally to "all commitments". See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 29 Doctorate Recipients with Postgraduation Commitments for Employment or Postdoctoral Study, for Citizens of Leading Non-U.S. Countries of Origin, and by Postgraduation Location and Plans, 1985-1995 (*Continued*)

	India						
	U.S. Location						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	90.9%	29.2%	21.3%	1.2%	2.3%	36.8%	0.0%
1986	93.4	32.1	20.3	0.8	1.8	37.9	0.5
1987	90.5	33.9	17.5	1.2	1.0	36.4	0.5
1988	92.5	32.1	20.1	0.9	1.1	37.8	0.5
1989	94.4	33.1	21.7	0.9	0.9	37.3	0.5
1990	88.3	31.2	23.7	0.9	1.1	31.0	0.4
1991	88.4	30.7	27.8	1.2	1.4	26.8	0.5
1992	88.4	26.7	26.1	0.9	1.9	32.2	0.6
1993	85.2	26.4	26.4	1.0	2.2	27.9	1.2
1994	88.5	23.1	28.6	1.2	1.9	32.4	1.3
1995	89.7	18.5	31.6	1.0	2.1	35.6	1.0

	India						
	Location Abroad						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	9.1%	5.3%	0.6%	0.0%	1.5%	1.8%	0.0%
1986	6.6	1.6	0.8	2.4	0.3	1.3	0.3
1987	9.5	4.0	0.7	1.5	0.7	2.5	0.0
1988	7.5	2.9	1.8	0.9	0.7	1.1	0.0
1989	5.6	2.8	0.2	1.2	0.5	0.9	0.0
1990	11.7	3.9	0.6	0.9	0.6	5.6	0.0
1991	11.6	3.6	0.9	0.9	0.2	5.6	0.5
1992	11.6	3.5	1.7	1.2	0.3	4.8	0.1
1993	14.8	5.3	1.3	1.6	0.9	5.3	0.3
1994	11.5	4.0	1.6	0.4	0.4	4.9	0.1
1995	10.3	3.7	1.6	0.4	0.4	4.1	0.1

NOTE: Only doctorates with definite commitments for employment or postdoctoral study are included. "All commitments" includes recipients whose employment sector is unreported. Percentages are based on the total number of Ph.D.s in each country who have definite commitments for employment or postdoctoral study and who reported a postdoctoral location. The percentages for "U.S. location, all commitments and "location Abroad, all commitments" for each year sum to 100 percent. Percentages for sector, study, and unknown sum horizontally to "all commitments". See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

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TABLE 29 Doctorate Recipients with Postgraduation Commitments for Employment or Postdoctoral Study, for Citizens of Leading Non-U.S. Countries of Origin, and by Postgraduation Location and Plans, 1985-1995 (*Continued*)

	Korea						
	U.S. Location						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	47.1%	10.7%	7.8%	1.5%	1.0%	26.2%	0.0%
1986	53.2	14.8	4.9	1.1	0.4	31.7	0.4
1987	53.7	14.4	6.2	0.3	0.6	32.0	0.3
1988	58.5	16.8	4.5	0.3	0.5	35.9	0.5
1989	59.2	13.2	4.4	0.7	0.2	40.6	0.2
1990	48.9	11.9	5.9	0.4	1.1	29.3	0.4
1991	48.8	11.3	5.3	0.5	0.9	30.7	0.2
1992	46.1	10.8	4.2	0.7	1.7	28.5	0.2
1993	44.9	8.2	3.6	0.2	1.1	31.7	0.0
1994	46.4	7.1	4.0	0.7	1.0	33.6	0.0
1995	50.1	8.4	3.1	0.0	0.8	37.8	0.0

	Korea						
	Location Abroad						
Year	All Commitments	Academe*	Industry/Self-Employed	Government	Other/Nonprofit†	Postdoctoral Study	Unknown Plans/ Unknown Sector
1985	52.9%	27.2%	6.3%	8.3%	5.8%	3.9%	1.5%
1986	46.8	28.9	3.2	7.0	2.1	3.2	2.5
1987	46.3	24.9	6.2	9.4	1.5	4.1	0.3
1988	41.5	19.8	5.8	7.5	2.5	5.0	0.8
1989	40.8	18.6	8.8	7.0	3.7	2.2	0.4
1990	51.1	19.8	11.3	5.9	2.0	9.7	2.3
1991	51.2	17.8	8.2	10.8	0.9	11.5	2.1
1992	53.9	15.9	11.0	8.6	1.7	13.9	2.7
1993	55.1	15.0	12.4	9.1	1.9	14.3	2.5
1994	53.6	16.0	13.9	8.7	1.4	11.1	2.4
1995	49.9	11.5	11.5	9.9	1.2	13.3	2.5

NOTE: Only doctorates with definite commitments for employment or postdoctoral study are included. "All commitments" includes recipients whose employment sector is unreported. Percentages are based on the total number of Ph.D.s in each country who have definite commitments for employment or postdoctoral study and who reported a postdoctoral location. The percentages for "U.S. location, all commitments and "location Abroad, all commitments" for each year sum to 100 percent. Percentages for sector, study, and unknown sum horizontally to "all commitments". See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

*Academe includes two- and four-year colleges and universities and medical schools. Elementary and secondary schools are included in "other".

†"Other" is mainly composed of elementary and secondary schools and nonprofit organizations.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 30 Postdoctoral Location of Non-U.S. Citizen Doctorate Recipients with Postgraduation Commitments, by Visa Status for Selected Years, 1975-1995

		All Non-U.S. Citizens	Permanent Visas	Temporary Visas
All Definite Commitments				
1975	N	3,318	1,040	2,278
1980	N	3,264	815	2,449
1985	N	4,052	763	3,289
1990	N	5,586	916	4,670
1995	N	6,772	2,073	4,699
Definite Commitments with Responses to Location				
1975	N	3,204	999	2,205
1980	N	3,059	762	2,297
1985	N	3,712	706	3,006
1990	N	5,133	823	4,310
1995	N	6,720	2,056	4,664
U.S. Location				
1975	%	53.3	90.2	36.6
1980	%	52.9	93.3	39.4
1985	%	54.6	89.7	46.4
1990	%	59.0	86.1	53.9
1995	%	65.1	91.6	53.4
Foreign Location				
1975	%	46.7	9.8	63.4
1980	%	47.1	6.7	60.6
1985	%	45.4	10.3	53.6
1990	%	41.0	13.9	46.1
1995	%	34.9	8.4	46.6

NOTE: Only non-U.S. citizen Ph.D.s with definite commitments are included. "All Definite Commitments" includes recipients who reported definite commitments but not location (U.S. or foreign). Percentages are based on the number of Ph.D.s who reported a definite commitment and a location. See technical notes in Appendix C for rates of nonresponse to the applicable questions and for further explanation of postgraduation plans.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 31 Postdoctoral Location of Non-U.S. Citizen Doctorate Recipients with Postgraduation Commitments, by Major Field and Visa Status, 1995

Field of Doctorate (responses only)	Postdoctoral Location: Permanent Visas — Resp. to Location/ Type of Plans (N)	U.S. Location — Empl. (%)	U.S. Location — Study (%)	Foreign Location — Empl. (%)	Foreign Location — Study (%)	Postdoctoral Location: Temporary Visas — Resp. to Location/ Type of Plans (N)	U.S. Location — Empl. (%)	U.S. Location — Study (%)	Foreign Location — Empl. (%)	Foreign Location — Study (%)
All Fields	2,045	46.7	44.9	5.6	2.7	4,634	26.6	27.1	36.4	10.0
Physical Sciences	524	42.6	51.5	1.5	4.4	1,043	23.8	40.7	19.4	16.2
Physics/Astronomy	146	24.7	66.4	2.1	6.8	234	9.8	48.3	12.0	29.9
Chemistry	171	27.5	68.4	0.6	3.5	284	13.7	65.5	7.4	13.4
Earth, Atmos., Marine	48	33.3	58.3	4.2	4.2	98	9.2	34.7	41.8	14.3
Mathematics	81	72.8	22.2	2.5	2.5	205	33.2	23.4	26.8	16.6
Computer Sciences	78	83.3	12.8	0.0	3.8	222	49.1	19.4	25.7	5.9
Engineering	403	72.2	21.8	4.5	1.5	1,141	37.2	24.0	32.7	6.1
Life Sciences	611	11.6	82.7	3.3	2.5	990	7.4	48.1	32.3	12.2
Biological Sciences	508	6.5	90.6	0.4	2.6	592	4.6	64.9	16.4	14.2
Health Sciences	51	45.1	39.2	13.7	2.0	136	15.4	22.1	54.4	8.1
Agricultural Sciences	52	28.8	48.1	21.2	1.9	262	9.5	23.7	56.9	9.9
Social Sciences*	179	64.2	20.7	14.5	0.6	556	32.9	8.5	51.4	7.2
Psychology	49	53.1	40.8	6.1	0.0	79	22.8	31.6	36.7	8.9
Economics	56	64.3	8.9	25.0	1.8	267	37.5	3.0	55.4	4.1
Poli. Sci./Int'l. Relat.	15	60.0	13.3	26.7	0.0	64	34.4	6.2	51.6	7.8
Sociology	27	81.5	14.8	3.7	0.0	47	19.1	10.6	53.2	17.0
Humanities	148	82.4	4.1	8.8	4.7	331	38.4	6.3	47.4	7.9
Education	90	75.6	7.8	14.4	2.2	253	15.0	3.2	72.3	9.5
Professional/Other*	90	73.3	6.7	18.9	1.1	320	43.1	1.6	51.6	3.8
Business & Mgmt.	62	79.0	3.2	16.1	1.6	215	51.6	1.9	43.7	2.8

NOTE: Only Ph.D.s with definite commitments are included; see Table 30 for numbers of non-U.S. citizens with commitments. Numbers in this table represent those Ph.D.s who responded to both postdoctoral location and type of plans; percentages are based on these numbers. See technical notes in Appendix C for rates of nonresponse to these questions and for further explanation of postgraduation plans.

*Totals include other fields not shown.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 32 Doctorate Recipients Seeking Postgraduation Employment or Postdoctoral Study, for Non-U.S. Citizens and Citizens of Leading Non-U.S. Countries of Origin, and by Postdoctoral Location, 1985-1995

	Non-U.S. Citizens					
	Number				Percent	
Year	Total Seeking	Seeking, Known Location	Seeking in U.S.	Seeking Abroad	Seeking in U.S.	Seeking Abroad
1985	1,869	592	302	290	51.0	49.0
1986	2,011	601	324	277	53.9	46.1
1987	2,198	634	370	264	58.4	41.6
1988	2,484	717	430	287	60.0	40.0
1989	2,609	801	457	344	57.1	42.9
1990	3,251	2,039	1,029	1,010	50.5	49.5
1991	3,766	3,199	1,846	1,353	57.7	42.3
1992	4,380	4,121	2,514	1,607	61.0	39.0
1993	4,827	4,519	2,751	1,768	60.9	39.1
1994	5,179	5,023	3,190	1,833	63.5	36.5
1995	5,084	4,936	3,252	1,684	65.9	34.1
	Leading Countries					
	Number				Percent	
Year	Total Seeking	Seeking, Known Location	Seeking in U.S.	Seeking Abroad	Seeking in U.S.	Seeking Abroad
1985	570	201	130	71	64.7	35.3
1986	625	207	119	88	57.5	42.5
1987	776	227	144	83	63.4	36.6
1988	914	301	196	105	65.1	34.9
1989	1,071	351	219	132	62.4	37.6
1990	1,598	1,031	501	530	48.6	51.4
1991	2,021	1,722	978	744	56.8	43.2
1992	2,504	2,376	1,446	930	60.9	39.1
1993	2,803	2,636	1,637	999	62.1	37.9
1994	3,097	3,018	1,988	1,030	65.9	34.1
1995	3,070	2,994	2,057	937	68.7	31.3

NOTE: Only non-U.S. citizen Ph.D.s who are seeking postdoctoral study or employment are included. "Total seeking" includes recipients who reported seeking status whether or not they reported a postdoctoral location (U.S. or foreign). Percentages are based on the number of Ph.D.s who reported seeking status and whose postdoctoral location is known. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

SOURCE: National Research Council, Survey of Earned Doctorates.

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TABLE 32 Doctorate Recipients Seeking Postgraduation Employment or Postdoctoral Study, for Non-U.S. Citizens and Citizens of Leading Non-U.S. Countries of Origin, and by Postdoctoral Location, 1985-1995 (*Continued*)

	China					
	Number				Percent	
Year	Total Seeking	Seeking, Known Location	Seeking in U.S.	Seeking Abroad	Seeking in U.S.	Seeking Abroad
1985	31	14	9	5	64.3	35.7
1986	42	18	10	8	55.6	44.4
1987	78	27	21	6	77.8	22.2
1988	130	47	38	9	80.9	19.1
1989	178	66	52	14	78.8	21.2
1990	388	215	184	31	85.6	14.4
1991	622	500	461	39	92.2	7.8
1992	845	798	744	54	93.2	6.8
1993	1,003	927	877	50	94.6	5.4
1994	1,194	1,165	1,121	44	96.2	3.8
1995	1,221	1,193	1,155	38	96.8	3.2

	Taiwan					
	Number				Percent	
Year	Total Seeking	Seeking, Known Location	Seeking in U.S.	Seeking Abroad	Seeking in U.S.	Seeking Abroad
1985	267	82	49	33	59.8	40.2
1986	271	89	61	28	68.5	31.5
1987	297	75	51	24	68.0	32.0
1988	319	98	67	31	68.4	31.6
1989	340	101	63	38	62.4	37.6
1990	418	257	140	117	54.5	45.5
1991	520	442	228	214	51.6	48.4
1992	610	567	300	267	52.9	47.1
1993	654	614	255	359	41.5	58.5
1994	729	707	301	406	42.6	57.4
1995	704	685	333	352	48.6	51.4

NOTE: Only non-U.S. citizen Ph.D.s who are seeking postdoctoral study or employment are included. "Total seeking" includes recipients who reported seeking status whether or not they reported a postdoctoral location (U.S. or foreign). Percentages are based on the number of Ph.D.s who reported seeking status and whose postdoctoral location is known. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

SOURCE: National Research Council, Survey of Earned Doctorates.

TABLE 32 Doctorate Recipients Seeking Postgraduation Employment or Postdoctoral Study, for Non-U.S. Citizens and Citizens of Leading Non-U.S. Countries of Origin, and by Postdoctoral Location, 1985-1995 (*Continued*)

	India					
	Number				Percent	
Year	Total Seeking	Seeking, Known Location	Seeking in U.S.	Seeking Abroad	Seeking in U.S.	Seeking Abroad
1985	139	54	48	6	88.9	11.1
1986	138	45	33	12	73.3	26.7
1987	142	36	31	5	86.1	13.9
1988	149	47	43	4	91.5	8.5
1989	177	55	53	2	96.4	3.6
1990	233	134	92	42	68.7	31.3
1991	221	189	135	54	71.4	28.6
1992	284	276	230	46	83.3	16.7
1993	374	348	297	51	85.3	14.7
1994	421	405	333	72	82.2	17.8
1995	453	437	369	68	84.4	15.6
	Korea					
	Number				Percent	
Year	Total Seeking	Seeking, Known Location	Seeking in U.S.	Seeking Abroad	Seeking in U.S.	Seeking Abroad
1985	133	51	24	27	47.1	52.9
1986	174	55	15	40	27.3	72.7
1987	259	89	41	48	46.1	53.9
1988	316	109	48	61	44.0	56.0
1989	376	129	51	78	39.5	60.5
1990	559	425	85	340	20.0	80.0
1991	658	591	154	437	26.1	73.9
1992	765	735	172	563	23.4	76.6
1993	772	747	208	539	27.8	72.2
1994	753	741	233	508	31.4	68.6
1995	692	679	200	479	29.5	70.5

NOTE: Only non-U.S. citizen Ph.D.s who are seeking postdoctoral study or employment are included. "Total seeking" includes recipients who reported seeking status whether or not they reported a postdoctoral location (U.S. or foreign). Percentages are based on the number of Ph.D.s who reported seeking status and whose postdoctoral location is known. See technical notes in Appendix C for rates of nonresponse to the applicable survey questions.

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIXES

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APPENDIX A: The Seven Basic Tables, 1995

Appendix A includes the following seven tables:

A-1 Number of Doctorate Recipients, by Gender and Subfield, 1995
A-2 Number of Doctorate Recipients, by Citizenship, Race/Ethnicity, and Subfield, 1995
A-3 Statistical Profile of Doctorate Recipients, by Major Field, 1995
A-4 Statistical Profile of Doctorate Recipients, by Race/Ethnicity and Citizenship, 1995
A-5 Sources of Graduate School Support for Doctorate Recipients, by Broad Field and Gender, 1995
A-6 State of Doctoral Institution of Doctorate Recipients, by Broad Field and Gender, 1995
A-7 Institutions Granting Doctorates, by Major Field, 1995

TABLE A-1 and TABLE A-2: Tables A-1 and A-2 display data for the most recent year by subfield of doctorate. The subfields correspond to the fields on the questionnaire's Specialties List located at the back of this report. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates (SED). See inside the back cover for a description of field groupings as reported in these tables. The "general" field categories—e.g., "chemistry, general"—include individuals who either received the doctorate in the general subject area or did not indicate a particular specialty field. The "other" field categories—e.g., "chemistry, other"—include individuals whose specified doctoral discipline was not among the specialty fields.

Table A-1 presents data by doctoral specialty and gender. Table A-2 displays doctoral specialty by citizenship and race/ethnicity. For a detailed description of the racial/ethnic variable, see the explanatory note for Table A-4.

TABLE A-3: Table A-3 is composed of three 2-page tables. The first table includes data on *all* doctorate recipients for the most recent year; the other two tables present the same data by gender. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside the back cover for a description of field groupings as reported in these tables; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included. Terms requiring definition are as follows:

- *Percentage with Master's*: The percentage of doctorate recipients in a field who received a master's degree in any field before earning the doctorate.

- *Median Age at Doctorate*: One-half received the doctorate at or before this age. A recipient's age is obtained by subtracting the month/year of birth from the month/year of doctorate. (See note on next page.)

- *Median Time Lapse*: "Total time" refers to the total calendar time elapsed between the month/year of baccalaureate and the month/year of doctorate; "registered time" refers to the actual time in attendance at colleges and universities between receipt of the

baccalaureate and the doctorate. Enrollment includes years of attendance not related to a recipient's doctoral program.

NOTE about medians: *The method of computing medians has been revised. Beginning with Summary Report 1994,* ***months*** *(of birth, baccalaureate, and doctorate) are included in the calculations whenever available; if months are missing, only years are used in the calculations. Medians presented in all earlier reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results. While differences are small (usually one- or two-tenths of a year), the reader should consider these differences when comparing medians presented in this report with those in earlier reports.*

Postgraduation Plans: Each year's doctorate recipients provide information on post-graduation employment or study plans in response to items 20-24 on the survey form. Since the questionnaire is filled out around the time the doctorate is awarded, a recipient's plans are subject to change. However, comparisons with the longitudinal Survey of Doctorate Recipients (SDR) have shown SED data to be a reasonable indicator of actual employment status in the year following the doctorate, although results vary by sector. (The SDR, also conducted by the National Research Council, is a follow-up employment survey of a sample of doctorate recipients in science, engineering, and humanities fields.) Refer to the footnote on page 139 in Appendix C for additional information on Ph.D.s who reported *definite* commitments at the time they completed the SED questionnaire.

In Table A-3 the postgraduation plans of doctorate recipients are grouped as follows: "Postdoctoral Study Plans" (fellowship, research associateship, traineeship, other), "Planned Employment After Doctorate" (educational institution, industry, etc.), and "Postdoctoral Plans Unknown." These categories include recipients who were still negotiating or seeking positions at the time of survey completion, as well as those whose plans were definite. The sum of these lines equals 100 percent for each column, with allowance for rounding: for example, 23.4 percent of all engineers had postdoctoral study plans, 67.9 percent planned to be employed, and 8.7 percent did not report their postgraduation plans, totaling 100 percent. The study and employment rows are further subdivided. The data on study plans show that 8.1 percent of all engineers planned to pursue postdoctoral fellowships; 13.4 percent, research associateships; 0.9 percent, traineeships; and 1.0 percent, some other form of postdoctoral study. These percentages sum to 23.4 percent, the proportion of engineers who reported plans for postdoctoral study. The employment row is similarly subdivided by type of employer. The percentages for these rows add to 67.9 percent—the proportion of engineering Ph.D.s who planned employment. The category for educational institutions includes elementary and secondary schools as well as colleges and universities, and the category for government includes military service.

The four lines of data beginning with "Definite Postdoctoral Study" distinguish between individuals who had definite postgraduation plans at the time of survey completion (item 20: "Am returning to, or continuing in, predoctoral employment" or "Have signed contract or made definite commitment") and those who were still seeking employment or postdoctoral study (item 20: "Am negotiating with one or more specific organizations," "Am

seeking position but have no specific prospects," or "Other"). These four lines, when added to the prior line, "Postdoctoral Plans Unknown," total 100 percent with allowance for rounding. The two lines "Definite Postdoctoral Study" and "Seeking Postdoctoral Study" add to give the percentage for "Postdoctoral Study Plans"; the two lines "Definite Employment" and "Seeking Employment" add to give the percentage for "Planned Employment After Doctorate."

Percentages showing the distribution of doctorate recipients by postdoctoral work activity and region of employment are based only on the number of recipients who had *definite employment* commitments at the time they completed the questionnaire. These percentages exclude recipients who planned postdoctoral study (as described above) and recipients who were still *seeking* employment at the time they completed the questionnaire. (Note that the rows on specific postdoctoral study and employment plans discussed earlier include individuals whose plans were *not definite*.) Revisions to the questionnaire format beginning in 1990 appear to have resulted in higher rates of nonresponse to the item on work activity through 1993, when the rate was 15.1 percent. The questionnaire was revised again in 1994 and, subsequently, nonresponse has dropped the past two years to 11.9 percent in 1994 and 10.7 percent in 1995.

The U.S. regions of employment shown in Table A-3 include the following states and territories:

New England:	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Middle Atlantic:	New Jersey, New York, Pennsylvania
East North Central:	Illinois, Indiana, Michigan, Ohio, Wisconsin
West North Central:	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
South Atlantic:	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
East South Central:	Alabama, Kentucky, Mississippi, Tennessee
West South Central:	Arkansas, Louisiana, Oklahoma, Texas
Mountain:	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
Pacific & Insular:	Alaska, California, Hawaii, Oregon, Washington, American Samoa, Guam, Puerto Rico, Trust Territory, Virgin Islands

TABLE A-4: Table A-4 contains data by race/ethnicity and citizenship for selected variables included in Tables A-3 and A-5. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside back cover for a description of field groupings as reported in these tables; refer to the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included.

The racial/ethnic question has undergone several revisions over the years. In 1977 it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget

(OMB) for use in federally sponsored surveys; an explanation of the effect of these changes is detailed on page 13 of *Summary Report 1977*. (Note: Changes in the OMB guidelines prompted the moving of persons having origins in the Indian subcontinent from the white category to the Asian category.) In 1980 the item was further revised in two ways: (1) the Hispanic category was subdivided into Puerto Rican, Mexican American, and other Hispanic to provide more detail for users of the racial/ethnic data, and (2) respondents were asked to check only one racial category. (Before 1980, doctorate recipients could check more than one category to indicate their race.) The item was modified again in 1982 to separate the questions on race and ethnicity. Since then, respondents have been asked to first check one of the four racial group categories (American Indian, Asian, black, or white) and then indicate whether or not they are Hispanic. In Table A-4, Ph.D.s who reported Hispanic heritage, regardless of racial designation, are included in one of three Hispanic groups: Puerto Rican, Mexican American, or other Hispanic. The remaining survey respondents are then counted in the respective racial groups. (Note: Doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as American Indian in this report.)

NOTE about median age and time lapse (to doctorate): *The method of computing medians has been revised. Beginning with Summary Report 1994,* ***months*** *(of birth, baccalaureate, and doctorate) are included in the calculations whenever available; if months are missing, only years are used in the calculations. Medians presented in all earlier reports were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results. While differences are small (usually one- or two-tenths of a year), the reader should consider these differences when comparing medians presented in this report with those in earlier reports. See note on Table A-3 for definitions.*

In the section on "Graduate School Support," a recipient counts in more than one category if support was received from multiple sources. Because a student counts once for each of his/her sources of support, the vertical percentages sum to more than 100 percent. See the explanatory note in Appendix Table A-5 for further detail. (Data on the *primary* source of support for doctorate recipients are presented in the body of the report.)

The other sections of Table A-4 correspond to many of those in Appendix Table A-3. The reader is referred to the explanatory note in Table A-3 for additional information.

TABLE A-5: Table A-5 displays data reported in item 17 on sources of financial support received during graduate school, by broad field and gender of recipient. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside back cover for a description of field groupings as reported in this table; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included.

A recipient counts in more than one category in Table A-5 if support was received from multiple sources. Because a student counts once for each of his/her sources of support, the vertical percentages sum to more than 100 percent. (Data on the *primary* source of support for doctorate recipients are presented in the body of the report.)

Beginning with *Summary Report 1990*, federal research assistantships (RAs) have been aggregated with university RAs and shown under "University Research Assistant" in this table. (Focus groups of doctoral candidates have indicated uncertainty as to the source of their RA funding; it is therefore likely that some RAs incorrectly identified support provided by the federal government as university rather than federal.) The reader is advised *not* to compare sources of support data presented in the 1990-1995 *Summary Reports* with data in earlier reports because percentages appear higher for university support and lower for federal support in tables where all RAs are aggregated as "University Research Assistants."

The data in Table A-5 should be interpreted as follows: 168 male doctorate recipients in the physical sciences in 1995 reported financial support from federal fellowships or traineeships during graduate school. This number is 3.4 percent of the male physical sciences Ph.D.s who answered the question on sources of support and 13.7 percent of all males in *any* field who reported federal fellowship or traineeship support.

TABLE A-6: Table A-6 shows, by broad field and gender, the number of persons receiving a doctorate in the most recent year from institutions in each of the 50 states, the District of Columbia, and Puerto Rico. Field groupings may differ from those in reports published by federal sponsors of the SED. See inside back cover for a description of field groupings as reported in this table; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included.

TABLE A-7: Table A-7 displays data by doctorate-granting institution and major field. It includes all institutions in the United States (the 50 states, the District of Columbia, and Puerto Rico) that awarded doctoral degrees in the most recent year. Field groupings may differ from those in reports published by federal sponsors of the SED and from departmental designations at institutions. See inside back cover for a description of field groupings as reported in this table; see the questionnaire's Specialties List at the back of the report for the names and codes of the subfields included.

APPENDIX TABLE A-1 Number of Doctorate Recipients, by Gender and Subfield, 1995

Subfield of Doctorate	Number of Doctorates		
	Total	Men	Women
TOTAL ALL FIELDS	41,610	25,277	16,333
PHYSICAL SCIENCES	6,806	5,307	1,499
MATHEMATICS	1,190	925	265
Applied Mathematics	211	164	47
Algebra	82	58	24
Analysis and Functional Analysis	99	81	18
Geometry	45	37	8
Logic	35	28	7
Number Theory	35	26	9
Mathematical Statistics	205	151	54
Topology	51	43	8
Computing Theory and Practice	14	12	2
Operations Research	36	31	5
Mathematics, General	305	241	64
Mathematics, Other	72	53	19
COMPUTER SCIENCE	998	812	186
Computer Science	914	754	160
Information Sciences and Systems	84	58	26
PHYSICS AND ASTRONOMY	1,652	1,440	212
Astronomy	89	71	18
Astrophysics	84	72	12
Acoustics	18	15	3
Chemical and Atomic/Molecular	110	95	15
Elementary Particles	183	176	7
Fluids	18	18	0
Nuclear	91	79	12
Optics	98	85	13
Plasma and High-Temperature	46	41	5
Polymer	23	20	3
Solid State and Low-Temperature	371	314	57
Physics, General	355	314	41
Physics, Other	166	140	26
CHEMISTRY	2,161	1,500	661
Analytical	317	208	109
Inorganic	257	165	92
Nuclear	5	2	3
Organic	483	349	134
Medicinal/Pharmaceutical	96	64	32
Physical	338	245	93
Polymer	116	88	28
Theoretical	40	30	10
Chemistry, General	458	323	135
Chemistry, Other	51	26	25
EARTH, ATMOS., & MARINE SCI.	805	630	175
Atmospheric Physics and Chemistry	27	19	8
Atmospheric Dynamics	16	13	3
Meteorology	25	22	3
Atmos. Sci./Meteorology, General	44	37	7
Atmos. Sci./Meteorology, Other	18	16	2
Geology	186	148	38
Geochemistry	42	32	10
Geophysics and Seismology	93	74	19
Paleontology	20	17	3
Mineralogy, Petrology	19	15	4
Stratigraphy, Sedimentation	16	15	1
Geomorphology and Glacial Geology	11	7	4
Geological & Related Sci., General	21	17	4
Geological & Related Sci., Other	22	18	4
Environmental Science	80	52	28
Hydrology and Water Resources	24	20	4
Oceanography	83	63	20
Marine Sciences	31	23	8
Misc. Physical Sciences, Other	27	22	5
ENGINEERING	6,007	5,313	694
Aerospace, Aeronautic., Astronautic.	251	237	14
Agricultural	73	66	7
Bioengineering and Biomedical	189	141	48
Ceramic Sciences	39	34	5
Chemical	602	506	96
Civil	572	517	55
Communications	29	24	5
Computer	189	171	18
Electrical, Electronics	1,513	1,363	150
Engineering Mechanics	108	100	8
Engineering Physics	17	16	1
Engineering Science	56	50	6
Environmental Health Engineering	84	63	21
Industrial/Manufacturing	283	233	50
Materials Science	476	392	84
Mechanical	916	861	55
Metallurgical	73	68	5
Mining and Mineral	19	19	0
Nuclear	105	96	9
Ocean	21	18	3
Operations Research	48	40	8
Petroleum	48	47	1
Polymer/Plastics	58	46	12
Systems	47	42	5
Engineering, General	60	51	9
Engineering, Other	131	112	19
LIFE SCIENCES	7,913	4,585	3,328
BIOLOGICAL SCIENCES	5,370	3,156	2,214
Biochemistry	825	483	342
Biomedical Sciences	93	52	41
Biophysics	154	109	45
Biotechnology Research	4	2	2
Bacteriology	13	7	6
Plant Genetics	35	23	12
Plant Pathology	32	22	10
Plant Physiology	55	34	21
Botany, Other	102	68	34
Anatomy	65	39	26
Biometrics and Biostatistics	67	44	23
Cell Biology	236	119	117
Ecology	203	139	64
Developmental Biology/Embryology	64	34	30
Endocrinology	20	14	6
Entomology	121	94	27
Biological Immunology	191	109	82
Molecular Biology	618	352	266
Microbiology	426	238	188
Neuroscience	305	186	119
Nutritional Sciences	136	44	92
Parasitology	14	7	7
Toxicology	123	75	48
Human and Animal Genetics	202	110	92
Human and Animal Pathology	109	71	38
Human and Animal Pharmacology	274	147	127
Human and Animal Physiology	262	159	103
Zoology, Other	145	95	50
Biological Sciences, General	350	201	149
Biological Sciences, Other	126	79	47
HEALTH SCIENCES	1,331	487	844
Speech-Lang. Pathology & Audiology	106	27	79
Environmental Health	52	28	24
Health Systems/Services Admin.	62	36	26
Public Health	152	51	101
Epidemiology	153	65	88
Exercise Physiology/Sci., Kinesiology	118	75	43
Nursing	354	14	340
Pharmacy	144	89	55
Rehabilitation/Therapeutic Services	20	5	15
Veterinary Medicine	55	37	18
Health Sciences, General	35	20	15
Health Sciences, Other	80	40	40
AGRICULTURAL SCIENCES	1,212	942	270
Agricultural Economics	173	131	42
Agricultural Business & Management	3	3	0
Animal Breeding and Genetics	19	18	1
Animal Nutrition	50	41	9
Dairy Science	14	11	3
Poultry Science	11	11	0
Fisheries Science and Management	49	40	9
Animal Sciences, Other	85	66	19
Agronomy and Crop Science	114	101	13
Plant Breeding and Genetics	72	57	15
Plant Pathology	52	43	9
Plant Sciences, Other	30	27	3
Food Engineering	7	7	0
Food Sciences, Other	135	81	54
Soil Chemistry/Microbiology	27	22	5
Soil Sciences, Other	72	54	18

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

APPENDIX TABLE A-1 (Continued)

Subfield of Doctorate	Number of Doctorates		
	Total	Men	Women
Horticulture Science	67	45	22
Forest Biology	24	19	5
Forest Engineering	4	4	0
Forest Management	20	14	6
Wood Sci. and Pulp/Paper Tech.	25	19	6
Conservation/Renewable Nat. Res.	24	19	5
Forestry and Related Sci., Other	72	59	13
Wildlife/Range Management	50	42	8
Agricultural Sciences, General	6	3	3
Agricultural Sciences, Other	7	5	2
SOCIAL SCIENCES (INCL. PSYCH.)	6,623	3,261	3,362
Anthropology	375	156	219
Area Studies	27	15	12
Criminology	44	21	23
Demography/Population Studies	15	9	6
Economics	954	722	232
Econometrics	26	22	4
Geography	150	107	43
Human/Individual & Family Develop.	152	34	118
International Relations/Affairs	72	51	21
Political Science and Government	600	433	167
Public Policy Analysis	92	57	35
Sociology	539	251	288
Statistics	48	37	11
Urban Affairs/Studies	103	66	37
Social Sciences, General	35	12	23
Social Sciences, Other	124	55	69
PSYCHOLOGY	3,267	1,213	2,054
Clinical	1,292	425	867
Cognitive and Psycholinguistics	104	52	52
Comparative	4	3	1
Counseling	470	173	297
Developmental and Child	153	31	122
Experimental	151	68	83
Educational	74	21	53
Family and Marriage Counseling	51	16	35
Industrial and Organizational	145	61	84
Personality	16	7	9
Physiological/Psychobiology	93	58	35
Psychometrics	10	6	4
Quantitative	13	4	9
School	91	29	62
Social	155	71	84
Psychology, General	307	121	186
Psychology, Other	138	67	71
HUMANITIES	5,061	2,616	2,445
History, American	344	218	126
History, Asian	43	26	17
History, European	185	114	71
History/Philosophy of Sci. & Tech.	41	23	18
History, General	148	90	58
History, Other	128	86	42
Classics	61	30	31
Comparative Literature	191	82	109
Linguistics	201	99	102
Speech and Rhetorical Studies	139	62	77
Letters, General	43	22	21
Letters, Other	34	12	22
American Studies	94	41	53
Archeology	35	17	18
Art History/Criticism/Conservation	181	62	119
Music	713	399	314
Philosophy	298	226	72
Religion	248	180	68
Drama/Theater Arts	80	44	36
LANGUAGE AND LITERATURE	1,719	719	1,000
American	327	143	184
English	753	317	436
French	151	43	108
German	93	35	58
Italian	35	11	24
Spanish	209	84	125
Russian	28	17	11
Slavic	16	10	6
Chinese	20	10	10
Japanese	7	2	5
Hebrew	11	10	1
Arabic	8	5	3
Other Language and Literature	61	32	29
Humanities, General	24	14	10
Humanities, Other	111	50	61
EDUCATION	6,546	2,514	4,032
Curriculum and Instruction	887	239	648
Educational Admin. and Supervision	1,084	500	584
Educational Leadership	834	361	473
Educ./Instruct. Media Design	121	62	59
Educ. Stat./Research Methods	63	25	38
Educ. Assess., Test., & Meas.	19	8	11
Educational Psychology	296	89	207
School Psychology	71	20	51
Social/Phil. Found. of Educ.	130	63	67
Special Education	251	65	186
Counseling Educ./Couns. & Guidance	262	81	181
Higher Educ./Evaluation & Research	454	191	263
Pre-elementary/Early Childhood	69	3	66
Elementary Education	61	11	50
Secondary Education	24	6	18
Adult and Continuing Education	234	84	150
TEACHING FIELDS	921	387	534
Agricultural Education	35	22	13
Art Education	39	12	27
Business Education	21	8	13
English Education	60	13	47
Foreign Languages Education	60	29	31
Health Education	98	30	68
Home Economics Education	15	1	14
Technical/Industrial Arts Education	15	14	1
Mathematics Education	92	39	53
Music Education	96	55	41
Nursing Education	18	1	17
Physical Education and Coaching	104	68	36
Reading Education	85	10	75
Science Education	71	27	44
Social Science Education	14	7	7
Technical Education	19	16	3
Trade and Industrial Education	13	8	5
Teacher Ed./Spec. Acad. & Voc., Other	66	27	39
Education, General	424	177	247
Education, Other	341	142	199
PROFESSIONAL/OTHER FIELDS	2,654	1,681	973
BUSINESS AND MANAGEMENT	1,323	947	376
Accounting	168	110	58
Banking/Financial Support Services	162	145	17
Business Admin. and Management	338	261	77
Business/Managerial Economics	37	30	7
International Business	23	15	8
Mgmt. Info. Sys./Bus. Data Proc.	111	84	27
Marketing Management and Research	153	100	53
Operations Research	59	43	16
Organizational Behavior	99	51	48
Bus. Mgmt./Admin. Serv., General	92	57	35
Bus. Mgmt./Admin. Serv., Other	81	51	30
COMMUNICATIONS	379	194	185
Communications Research	40	19	21
Mass Communications	120	73	47
Communication Theory	53	24	29
Communications, General	78	31	47
Communications, Other	88	47	41
OTHER PROFESSIONAL FIELDS	926	523	403
Architectural Environmental Design	55	37	18
Home Economics	31	4	27
Law	36	29	7
Library Science	47	17	30
Parks/Recreation/Leisure/Fitness	54	27	27
Public Administration	129	86	43
Social Work	298	96	202
Theology/Religious Education	273	225	48
Professional Fields, General	1	1	0
Professional Fields, Other	2	1	1
OTHER FIELDS	26	17	9

SOURCE: National Research Council, Survey of Earned Doctorates.

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APPENDIX TABLE A-2 Number of Doctorate Recipients, by Citizenship, Race/Ethnicity, and Subfield, 1995

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	American Indian	Asian	Black	White	Puerto Rican	Mexican Amer.	Other Hispanic	Unkn. Race
TOTAL ALL FIELDS	41,610	8,806	31,910	148	4,300	1,455	24,608	269	289	497	344
PHYSICAL SCIENCES	6,806	1,849	4,821	11	1,201	62	3,373	24	26	56	68
MATHEMATICS	1,190	382	771	2	208	5	535	1	6	8	6
Applied Mathematics	211	63	148	0	42	0	97	0	1	6	2
Algebra	82	16	66	0	10	0	55	0	0	0	1
Analysis and Functional Analysis	99	27	71	0	18	1	52	0	0	0	0
Geometry	45	17	28	0	4	0	24	0	0	0	0
Logic	35	6	29	0	1	0	27	0	1	0	0
Number Theory	35	13	22	0	6	0	14	0	1	1	0
Mathematical Statistics	205	70	133	1	51	2	77	0	1	0	1
Topology	51	18	33	0	5	0	28	0	0	0	0
Computing Theory and Practice	14	5	9	0	2	0	7	0	0	0	0
Operations Research	36	16	20	0	10	0	10	0	0	0	0
Mathematics, General	305	114	157	1	51	0	100	0	2	1	2
Mathematics, Other	72	17	55	0	8	2	44	1	0	0	0
COMPUTER SCIENCE	998	365	617	0	138	11	453	0	3	3	9
Computer Science	914	348	551	0	125	8	403	0	3	3	9
Information Sciences and Systems	84	17	66	0	13	3	50	0	0	0	0
PHYSICS AND ASTRONOMY	1,652	427	1,200	2	334	10	797	4	5	21	27
Astronomy	89	16	71	0	8	1	60	0	0	0	2
Astrophysics	84	12	70	0	14	0	51	1	1	2	1
Acoustics	18	3	15	0	1	0	14	0	0	0	0
Chemical and Atomic/Molecular	110	32	78	0	22	0	52	0	1	2	1
Elementary Particles	183	52	130	0	25	0	98	0	0	4	3
Fluids	18	5	13	0	4	0	6	0	0	2	1
Nuclear	91	29	62	0	15	1	46	0	0	0	0
Optics	98	16	81	1	18	1	60	0	0	1	0
Plasma and High-Temperature	46	14	32	0	4	0	27	0	0	0	1
Polymer	23	8	15	0	4	0	11	0	0	0	0
Solid State and Low-Temperature	371	83	288	0	116	3	159	1	2	3	4
Physics, General	355	118	220	0	68	4	136	1	0	3	8
Physics, Other	166	39	125	1	35	0	77	1	1	4	6
CHEMISTRY	2,161	493	1,623	7	416	33	1,110	17	8	18	14
Analytical	317	56	260	1	54	4	191	5	1	3	1
Inorganic	257	41	207	1	41	3	158	1	1	1	1
Nuclear	5	0	5	1	1	0	3	0	0	0	0
Organic	483	123	352	1	97	8	233	4	2	6	1
Medicinal/Pharmaceutical	96	30	66	0	21	3	42	0	0	0	0
Physical	338	70	263	1	65	0	190	2	2	2	1
Polymer	116	35	81	0	32	5	42	2	0	0	0
Theoretical	40	9	31	0	7	0	23	0	0	1	0
Chemistry, General	458	118	318	0	86	10	205	3	2	3	9
Chemistry, Other	51	11	40	2	12	0	23	0	0	2	1
EARTH, ATMOS., & MARINE SCI.	805	182	610	0	105	3	478	2	4	6	12
Atmospheric Physics and Chemistry	27	3	24	0	8	0	16	0	0	0	0
Atmospheric Dynamics	16	7	9	0	1	0	8	0	0	0	0
Meteorology	25	6	17	0	5	0	11	0	0	0	1
Atmos. Sci./Meteorology, General	44	9	35	0	13	0	22	0	0	0	0
Atmos. Sci./Meteorology, Other	18	10	8	0	1	0	7	0	0	0	0
Geology	186	34	145	0	20	0	120	0	2	1	2
Geochemistry	42	6	36	0	8	0	27	0	1	0	0
Geophysics and Seismology	93	26	66	0	20	0	42	0	0	2	2
Paleontology	20	2	18	0	1	0	17	0	0	0	0
Mineralogy, Petrology	19	2	17	0	2	0	15	0	0	0	0
Stratigraphy, Sedimentation	16	3	13	0	0	0	12	0	0	0	1
Geomorphology and Glacial Geology	11	0	11	0	1	0	10	0	0	0	0
Geological & Related Sci., General	21	9	11	0	1	0	10	0	0	0	0
Geological & Related Sci., Other	22	11	11	0	2	0	7	1	0	0	1
Environmental Science	80	12	68	0	6	2	55	1	1	1	2
Hydrology and Water Resources	24	4	20	0	1	0	18	0	0	0	1
Oceanography	83	22	59	0	13	0	44	0	0	2	0
Marine Sciences	31	6	25	0	1	1	23	0	0	0	0
Misc. Physical Sciences, Other	27	10	17	0	1	0	14	0	0	0	2
ENGINEERING	6,007	2,523	3,336	10	1,031	71	2,086	13	19	45	61
Aerospace, Aeronautic., Astronautic.	251	94	153	0	24	1	119	1	2	4	2
Agricultural	73	34	39	0	10	0	27	0	0	1	1
Bioengineering and Biomedical	189	44	139	0	28	1	105	0	0	4	1
Ceramic Sciences	39	9	29	0	7	1	19	0	0	1	1
Chemical	602	260	333	2	86	2	226	4	3	4	6
Civil	572	303	259	0	73	10	166	0	6	2	2
Communications	29	16	12	0	4	0	8	0	0	0	0
Computer	189	97	91	0	30	3	57	0	0	0	1

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

*Includes individuals who did not report their citizenship at time of doctorate.

APPENDIX TABLE A-2 (Continued)

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	American Indian	Asian	Black	White	Puerto Rican	Mex-ican Amer.	Other His-panic	Unkn. Race
Electrical, Electronics	1,513	599	868	2	288	21	523	3	3	9	19
Engineering Mechanics	108	55	53	0	19	0	32	0	0	1	1
Engineering Physics	17	4	13	0	6	0	7	0	0	0	0
Engineering Science	56	19	33	0	10	0	22	0	0	1	0
Environmental Health Engineering	84	34	50	0	18	1	28	1	1	1	0
Industrial/Manufacturing	283	130	149	1	41	8	93	1	0	3	2
Materials Science	476	180	287	0	122	5	147	1	2	3	7
Mechanical	916	382	505	2	170	14	302	1	2	4	10
Metallurgical	73	34	35	0	6	0	28	0	0	0	1
Mining and Mineral	19	12	7	0	4	0	3	0	0	0	0
Nuclear	105	36	67	1	17	0	46	0	0	1	2
Ocean	21	11	8	1	4	0	3	0	0	0	0
Operations Research	48	18	29	0	10	2	15	1	0	1	0
Petroleum	48	28	20	0	8	0	11	0	0	1	0
Polymer/Plastics	58	30	28	0	7	1	19	0	0	1	0
Systems	47	20	27	1	9	0	16	0	0	0	1
Engineering, General	60	19	39	0	18	0	19	0	0	1	1
Engineering, Other	131	55	63	0	12	1	45	0	0	2	3
LIFE SCIENCES	7,913	1,727	6,055	27	1,110	186	4,494	45	41	93	59
BIOLOGICAL SCIENCES	5,370	971	4,321	15	924	105	3,116	30	28	68	35
Biochemistry	825	175	634	3	169	15	421	4	7	5	10
Biomedical Sciences	93	15	72	0	22	0	49	0	1	0	0
Biophysics	154	27	126	1	42	2	76	0	0	5	0
Biotechnology Research	4	0	4	0	1	0	3	0	0	0	0
Bacteriology	13	2	11	0	1	0	10	0	0	0	0
Plant Genetics	35	7	27	0	3	0	22	0	1	1	0
Plant Pathology	32	14	18	0	3	2	13	0	0	0	0
Plant Physiology	55	16	39	0	12	2	25	0	0	0	0
Botany, Other	102	23	75	0	10	1	60	1	0	3	0
Anatomy	65	9	55	0	9	4	41	0	1	0	0
Biometrics and Biostatistics	67	20	44	0	14	1	27	0	0	1	1
Cell Biology	236	24	210	1	45	6	151	0	1	3	3
Ecology	203	23	179	0	13	0	160	3	1	1	1
Developmental Biology/Embryology	64	11	53	0	16	1	34	1	0	1	0
Endocrinology	20	6	13	0	4	0	9	0	0	0	0
Entomology	121	37	82	0	8	2	66	2	1	2	1
Biological Immunology	191	19	172	1	29	2	137	0	0	3	0
Molecular Biology	618	104	506	2	152	16	323	2	4	2	5
Microbiology	426	83	341	2	71	6	240	8	3	8	3
Neuroscience	305	32	270	1	43	3	207	2	1	10	3
Nutritional Sciences	136	33	100	0	16	6	73	1	0	2	2
Parasitology	14	5	9	0	1	0	8	0	0	0	0
Toxicology	123	18	104	0	13	4	85	1	1	0	0
Human and Animal Genetics	202	35	166	1	25	5	128	0	0	4	3
Human and Animal Pathology	109	18	91	0	18	2	69	0	0	2	0
Human and Animal Pharmacology	274	45	227	1	64	9	147	1	1	3	1
Human and Animal Physiology	262	56	206	2	44	10	144	1	1	3	1
Zoology, Other	145	12	133	0	5	0	125	0	1	2	0
Biological Sciences, General	350	82	253	0	50	6	189	2	1	4	1
Biological Sciences, Other	126	20	101	0	21	0	74	1	2	3	0
HEALTH SCIENCES	1,331	245	1,045	9	94	60	835	12	8	10	17
Speech-Lang. Pathology & Audiology	106	14	90	0	4	9	74	1	2	0	0
Environmental Health	52	13	36	0	6	3	20	0	0	2	5
Health Systems/Services Admin.	62	7	48	0	3	4	36	1	1	0	3
Public Health	152	23	119	0	13	10	92	0	2	2	0
Epidemiology	153	37	112	0	9	7	90	2	0	1	3
Exercise Physiology/Sci., Kinesiology	118	10	108	2	7	2	93	3	0	1	0
Nursing	354	35	312	5	6	14	281	2	2	2	0
Pharmacy	144	64	78	1	24	4	45	3	0	1	0
Rehabilitation/Therapeutic Services	20	2	18	1	2	3	12	0	0	0	0
Veterinary Medicine	55	16	39	0	7	2	29	0	0	0	1
Health Sciences, General	35	5	29	0	4	1	22	0	1	1	0
Health Sciences, Other	80	19	56	0	9	1	41	0	0	0	5
AGRICULTURAL SCIENCES	1,212	511	689	3	92	21	543	3	5	15	7
Agricultural Economics	173	82	88	1	14	4	67	0	1	1	0
Agricultural Business & Management	3	0	3	0	0	0	3	0	0	0	0
Animal Breeding and Genetics	19	6	13	0	1	1	11	0	0	0	0
Animal Nutrition	50	16	34	0	1	0	32	1	0	0	0
Dairy Science	14	6	8	0	2	0	5	0	0	1	0
Poultry Science	11	3	8	0	3	0	5	0	0	0	0
Fisheries Science and Management	49	11	38	1	2	1	34	0	0	0	0
Animal Sciences, Other	85	30	53	0	6	2	44	0	0	0	1
Agronomy and Crop Science	114	54	60	0	7	1	47	1	1	2	1
Plant Breeding and Genetics	72	33	39	0	5	0	33	0	0	1	0
Plant Pathology	52	29	20	0	4	1	14	1	0	0	0
Plant Sciences, Other	30	17	13	0	2	1	9	0	1	0	0
Food Engineering	7	3	4	0	0	0	3	0	0	1	0
Food Sciences, Other	135	71	64	0	16	4	37	0	1	5	1
Soil Chemistry/Microbiology	27	9	18	0	4	0	12	0	0	2	0
Soil Sciences, Other	72	31	40	0	7	1	32	0	0	0	0
Horticulture Science	67	31	35	1	2	1	30	0	1	0	0

APPENDIX TABLE A-2 (Continued)

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	American Indian	Asian	Black	White	Puerto Rican	Mex-ican Amer.	Other His-panic	Unkn. Race
Forest Biology	24	4	20	0	2	0	18	0	0	0	0
Forest Engineering	4	2	2	0	0	0	2	0	0	0	0
Forest Management	20	6	14	0	3	1	9	0	0	0	1
Wood Sci. and Pulp/Paper Tech.	25	15	10	0	2	0	8	0	0	0	0
Conservation/Renewable Nat. Res.	24	8	16	0	0	1	13	0	0	2	0
Forestry and Related Sci., Other	72	26	44	0	7	0	36	0	0	0	1
Wildlife/Range Management	50	12	38	0	2	1	33	0	0	0	2
Agricultural Sciences, General	6	3	3	0	0	0	3	0	0	0	0
Agricultural Sciences, Other	7	3	4	0	0	1	3	0	0	0	0
SOCIAL SCIENCES (INCL. PSYCH.)	6,623	1,021	5,431	29	394	278	4,457	65	70	92	46
Anthropology	375	35	329	5	20	8	272	3	3	12	6
Area Studies	27	1	24	0	3	3	17	0	1	0	0
Criminology	44	3	41	1	1	8	29	0	0	1	1
Demography/Population Studies	15	5	10	0	4	0	6	0	0	0	0
Economics	954	405	523	1	100	22	383	5	3	4	5
Econometrics	26	12	14	0	5	0	9	0	0	0	0
Geography	150	32	118	1	10	3	96	4	0	3	1
Human/Individual & Family Develop.	152	17	132	0	6	6	111	1	2	4	2
International Relations/Affairs	72	17	54	1	10	5	37	0	1	0	0
Political Science and Government	600	126	450	1	37	28	367	2	5	7	3
Public Policy Analysis	92	11	80	0	4	6	64	0	3	2	1
Sociology	539	110	417	1	47	30	323	4	2	8	2
Statistics	48	33	14	0	7	0	7	0	0	0	0
Urban Affairs/Studies	103	39	60	0	11	4	40	0	2	2	1
Social Sciences, General	35	7	28	0	4	2	20	0	2	0	0
Social Sciences, Other	124	23	100	4	10	9	72	3	0	0	2
PSYCHOLOGY	3,267	145	3,037	14	115	144	2,604	43	46	49	22
Clinical	1,292	25	1,250	3	45	54	1,092	12	19	15	10
Cognitive and Psycholinguistics	104	14	90	0	10	1	77	0	0	1	1
Comparative	4	0	4	0	0	0	3	0	0	1	0
Counseling	470	3	461	5	6	30	396	6	10	8	0
Developmental and Child	153	17	135	0	4	5	117	2	1	5	1
Experimental	151	7	144	0	5	5	128	0	5	1	0
Educational	74	5	68	0	1	2	60	1	3	0	1
Family and Marriage Counseling	51	1	45	0	1	0	44	0	0	0	0
Industrial and Organizational	145	8	137	2	3	5	121	5	1	0	0
Personality	16	1	15	0	0	3	10	1	1	0	0
Physiological/Psychobiology	93	6	86	2	6	5	70	2	0	0	1
Psychometrics	10	3	7	0	0	1	6	0	0	0	0
Quantitative	13	3	10	1	1	0	7	0	1	0	0
School	91	4	86	0	0	1	82	0	0	1	2
Social	155	10	144	0	8	9	118	2	1	5	1
Psychology, General	307	24	235	1	19	16	171	9	4	11	4
Psychology, Other	138	14	120	0	6	7	102	3	0	1	1
HUMANITIES	5,061	649	4,315	19	217	124	3,735	31	36	94	59
History, American	344	19	325	0	7	14	302	1	0	1	0
History, Asian	43	10	32	0	12	0	20	0	0	0	0
History, European	185	12	173	0	5	0	163	2	0	2	1
History/Philosophy of Sci. & Tech.	41	7	33	0	2	0	30	0	0	1	0
History, General	148	20	115	1	8	6	88	1	5	2	4
History, Other	128	16	112	0	5	2	94	2	2	6	1
Classics	61	5	56	0	0	1	53	0	0	2	0
Comparative Literature	191	38	151	1	11	6	122	1	2	6	2
Linguistics	201	78	118	0	16	1	96	1	1	3	0
Speech and Rhetorical Studies	139	7	132	0	2	5	121	0	1	2	1
Letters, General	43	3	40	0	1	1	36	0	0	1	1
Letters, Other	34	2	32	1	1	1	28	0	0	0	1
American Studies	94	9	82	1	5	9	62	0	0	1	4
Archeology	35	6	29	0	1	0	27	0	1	0	0
Art History/Criticism/Conservation	181	12	166	0	6	2	155	0	1	1	1
Music	713	90	601	1	45	17	516	1	4	7	10
Philosophy	298	40	250	2	11	3	221	3	0	6	4
Religion	248	22	221	4	12	11	189	0	0	1	4
Drama/Theater Arts	80	5	72	0	2	3	63	1	2	0	1
LANGUAGE AND LITERATURE	1,719	221	1,469	8	61	26	1,272	16	16	51	19
American	327	25	302	1	10	11	271	1	3	4	1
English	753	71	665	5	27	7	612	2	4	0	8
French	151	33	117	0	6	3	105	0	0	0	3
German	93	17	73	1	2	1	67	0	0	0	2
Italian	35	4	31	0	0	0	30	0	0	1	0
Spanish	209	46	160	0	4	2	91	12	7	43	1
Russian	28	2	26	0	0	0	25	0	0	0	1
Slavic	16	1	15	0	0	1	13	0	0	0	1
Chinese	20	5	15	0	7	0	8	0	0	0	0
Japanese	7	2	5	0	2	0	3	0	0	0	0
Hebrew	11	2	9	0	0	0	9	0	0	0	0
Arabic	8	2	6	0	2	0	4	0	0	0	0
Other Language and Literature	61	11	45	1	1	1	34	1	2	3	2
Humanities, General	24	3	21	0	1	0	19	0	0	1	0
Humanities, Other	111	24	85	0	3	16	58	2	1	0	5

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.
*Includes individuals who did not report their citizenship at time of doctorate.

APPENDIX TABLE A-2 (Continued)

Subfield of Doctorate	Total Doctorates*	Non-U.S. Citizens Temp. Visas	U.S. Citizens and Non-U.S. with Permanent Visas								
			Total	American Indian	Asian	Black	White	Puerto Rican	Mex-ican Amer.	Other His-panic	Unkn. Race
EDUCATION	6,546	501	5,895	40	174	610	4,779	69	92	94	37
Curriculum and Instruction	887	68	801	4	20	61	665	18	15	14	4
Educational Admin. and Supervision	1,084	57	1,008	10	18	135	791	12	22	14	6
Educational Leadership	834	32	799	9	20	104	633	4	14	11	4
Educ./Instruct. Media Design	121	26	95	0	2	10	78	0	2	3	0
Educ. Stat./Research Methods	63	10	53	0	5	2	46	0	0	0	0
Educ. Assess., Test., & Meas.	19	6	13	0	4	0	8	0	0	1	0
Educational Psychology	296	31	258	2	14	13	213	1	8	4	3
School Psychology	71	2	68	0	1	1	61	0	1	4	0
Social/Phil. Found. of Educ.	130	21	108	1	5	8	84	1	5	1	3
Special Education	251	23	218	2	3	20	184	0	1	7	1
Counseling Educ./Couns. & Guidance	262	5	253	1	4	31	207	5	1	3	1
Higher Educ./Evaluation & Research	454	10	439	2	13	49	358	2	6	7	2
Pre-elementary/Early Childhood	69	12	57	0	1	11	40	1	2	2	0
Elementary Education	61	5	55	1	0	2	51	1	0	0	0
Secondary Education	24	2	22	0	0	2	20	0	0	0	0
Adult and Continuing Education	234	17	216	0	3	24	183	1	1	4	0
TEACHING FIELDS	921	103	806	5	36	57	677	13	8	7	3
Agricultural Education	35	7	28	1	1	4	21	0	0	0	1
Art Education	39	10	29	0	0	1	26	0	0	1	1
Business Education	21	1	20	0	2	2	13	3	0	0	0
English Education	60	2	58	0	1	5	51	0	1	0	0
Foreign Languages Education	60	16	43	0	9	0	29	4	0	1	0
Health Education	98	3	92	1	0	7	77	5	0	2	0
Home Economics Education	15	4	11	0	0	4	7	0	0	0	0
Technical/Industrial Arts Education	15	5	10	0	0	1	9	0	0	0	0
Mathematics Education	92	8	84	0	1	6	76	0	0	0	1
Music Education	96	9	86	0	5	3	77	0	1	0	0
Nursing Education	18	1	17	0	0	0	17	0	0	0	0
Physical Education and Coaching	104	13	87	1	10	5	70	0	1	0	0
Reading Education	85	3	82	1	2	8	67	0	3	1	0
Science Education	71	7	62	0	2	3	56	0	1	0	0
Social Science Education	14	2	12	0	0	2	9	0	0	1	0
Technical Education	19	1	18	1	0	1	15	0	1	0	0
Trade and Industrial Education	13	5	8	0	0	1	7	0	0	0	0
Teacher Ed./Spec. Acad. & Voc., Other	66	6	59	0	3	4	50	1	0	1	0
Education, General	424	39	322	2	13	39	241	6	4	7	10
Education, Other	341	32	304	1	12	41	239	4	2	5	0
PROFESSIONAL/OTHER FIELDS	2,654	536	2,057	12	173	124	1,684	22	5	23	14
BUSINESS AND MANAGEMENT	1,323	337	962	7	114	32	788	7	1	9	4
Accounting	168	34	134	1	14	4	113	1	0	1	0
Banking/Financial Support Services	162	68	94	0	24	4	63	0	0	2	1
Business Admin. and Management	338	72	253	2	24	7	217	1	0	2	0
Business/Managerial Economics	37	7	29	0	2	0	26	0	0	0	1
International Business	23	4	19	0	6	0	13	0	0	0	0
Mgmt. Info. Sys./Bus. Data Proc.	111	30	81	0	9	4	67	0	0	0	1
Marketing Management and Research	153	41	111	2	10	3	94	0	0	2	0
Operations Research	59	24	33	0	6	1	24	0	0	1	1
Organizational Behavior	99	16	83	1	4	3	74	0	0	1	0
Bus. Mgmt./Admin. Serv., General	92	18	67	1	8	4	49	5	0	0	0
Bus. Mgmt./Admin. Serv., Other	81	23	58	0	7	2	48	0	1	0	0
COMMUNICATIONS	379	54	318	1	20	27	255	3	2	5	5
Communications Research	40	5	35	0	2	3	27	2	1	0	0
Mass Communications	120	26	93	0	8	6	74	0	0	4	1
Communication Theory	53	6	47	0	4	1	38	1	0	1	2
Communications, General	78	7	67	1	2	10	52	0	0	0	2
Communications, Other	88	10	76	0	4	7	64	0	1	0	0
OTHER PROFESSIONAL FIELDS	926	139	758	4	37	64	626	12	2	9	4
Architectural Environmental Design	55	22	30	0	2	1	26	0	0	1	0
Home Economics	31	7	24	0	2	2	19	1	0	0	0
Law	36	12	13	0	2	0	11	0	0	0	0
Library Science	47	9	37	0	7	7	20	3	0	0	0
Parks/Recreation/Leisure/Fitness	54	11	41	0	4	2	34	0	0	1	0
Public Administration	129	17	104	0	0	10	92	1	0	0	1
Social Work	298	31	265	2	9	33	209	6	0	4	2
Theology/Religious Education	273	30	241	2	11	9	213	1	2	2	1
Professional Fields, General	1	0	1	0	0	0	1	0	0	0	0
Professional Fields, Other	2	0	2	0	0	0	1	0	0	1	0
OTHER FIELDS	26	6	19	0	2	1	15	0	0	0	1

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SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-3 Statistical Profile of Doctorate Recipients, by Major Field, 1995

Total All Doctorates

		1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos. and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES	ENGINEERING	Biochemistry	Other Biosciences	Biosciences Subtotal	Health Sciences	Agricultural Sciences	LIFE SCIENCES
Number in Field		**41,610**	**1,652**	**2,161**	**805**	**1,190**	**998**	**6,806**	**6,007**	**825**	**4,545**	**5,370**	**1,331**	**1,212**	**7,913**
Men	%	60.7	87.2	69.4	78.3	77.7	81.4	78.0	88.4	58.5	58.8	58.8	36.6	77.7	57.9
Women		39.3	12.8	30.6	21.7	22.3	18.6	22.0	11.6	41.5	41.2	41.2	63.4	22.3	42.1
U.S. Citizenship	%	66.3	53.5	57.2	61.2	46.6	48.5	53.7	39.7	57.5	66.3	65.0	70.5	46.9	63.1
Non-U.S., Permanent Visa		10.4	19.1	17.9	14.5	18.2	13.3	17.2	15.9	19.4	14.8	15.5	8.0	9.9	13.4
Non-U.S., Temporary Visa		21.2	25.8	22.8	22.6	32.1	36.6	27.2	42.0	21.2	17.5	18.1	18.4	42.2	21.8
Unknown		2.1	1.5	2.1	1.6	3.1	1.6	2.0	2.5	1.9	1.4	1.5	3.1	1.0	1.7
Married	%	56.0	50.4	53.2	59.3	53.1	55.8	53.6	58.7	55.5	54.7	54.8	57.1	63.0	56.5
Not Married		35.0	42.7	38.8	34.2	38.9	35.4	38.7	33.1	36.7	38.6	38.3	31.4	28.1	35.6
Unknown		9.0	6.8	8.0	6.6	8.0	8.8	7.7	8.2	7.8	6.7	6.9	11.5	8.8	7.9
Median Age at Doct.*	Yrs	33.9	30.5	30.2	33.6	31.1	32.2	31.0	31.7	30.3	31.7	31.5	38.0	34.3	32.4
Percent with Bacc. in Same Field as Doctorate	%	55.0	73.2	76.0	52.2	72.1	41.4	66.7	79.1	24.5	54.9	50.2	47.4	57.3	50.8
Percent with Masters	%	78.0	65.9	44.5	80.4	74.9	88.0	65.6	86.5	33.5	46.5	44.5	84.8	88.6	58.0
Median Time Lapse from Bacc. to Doct.*															
Total Time	Yrs	10.9	8.0	7.4	10.8	8.6	9.5	8.4	9.1	7.7	8.9	8.6	14.0	11.0	9.5
Registered Time		7.2	6.9	6.2	7.7	6.9	7.3	6.9	6.4	6.6	6.9	6.9	7.6	6.5	7.0
Postdoctoral Study Plans	%	26.7	58.7	56.4	45.6	26.3	16.4	44.6	23.4	81.2	71.5	73.0	20.0	32.7	57.9
Fellowship		13.7	23.7	26.5	20.7	12.5	7.6	19.9	8.1	51.9	43.5	44.8	11.1	9.9	33.8
Research Assoc.		10.1	33.2	27.8	24.1	10.5	7.7	22.7	13.4	21.3	19.7	19.9	6.4	21.0	17.8
Traineeship		0.9	0.5	0.5	0.2	0.7	0.1	0.4	0.9	2.2	1.9	1.9	0.9	1.0	1.6
Other Study		2.0	1.3	1.7	0.5	2.6	1.0	1.5	1.0	5.8	6.4	6.3	1.6	0.7	4.7
Planned Employment After Doctorate	%	65.1	33.5	35.8	46.3	64.8	74.6	47.3	67.9	12.4	23.2	21.5	69.6	59.0	35.3
Educ. Institution†		38.4	9.6	8.2	17.6	45.1	32.7	19.7	17.2	4.0	11.4	10.3	41.8	24.8	17.8
Industry/Business		14.1	16.9	22.2	12.4	12.9	33.3	19.8	39.1	5.9	5.4	5.5	10.4	15.2	7.8
Government		4.7	3.1	1.7	9.8	2.2	3.0	3.3	6.0	1.1	3.0	2.7	6.9	10.5	4.6
Nonprofit		3.4	0.5	0.3	1.4	0.7	1.5	0.7	1.1	0.2	1.3	1.2	6.1	1.8	2.1
Other & Unknown		4.6	3.4	3.4	5.1	3.9	4.2	3.8	4.5	1.1	2.0	1.9	4.3	6.8	3.0
Postdoc. Plans Unknown	%	8.2	7.7	7.8	8.1	8.9	8.9	8.2	8.7	6.4	5.3	5.5	10.4	8.3	6.7
Definite Postdoc. Study	%	17.7	39.8	40.4	26.7	16.5	11.2	30.1	12.6	62.2	52.7	54.2	12.3	17.3	41.5
Seeking Postdoc. Study		9.0	18.9	16.1	18.9	9.8	5.2	14.4	10.8	19.0	18.8	18.9	7.7	15.3	16.4
Definite Employment		41.6	18.0	20.7	28.8	38.4	50.1	28.4	38.3	7.5	14.2	13.2	47.3	37.3	22.6
Seeking Employment		23.5	15.6	15.0	17.5	26.4	24.5	18.8	29.6	4.8	9.0	8.3	22.2	21.7	12.7
Employment Commitments After Doctorate		**17,329**	**297**	**448**	**232**	**457**	**500**	**1,934**	**2,299**	**62**	**645**	**707**	**630**	**452**	**1,789**
Primary Activity‡															
R & D	%	28.1	53.4	64.2	43.8	37.5	63.0	53.5	67.2	42.7	40.1	40.3	30.1	52.5	39.8
Teaching		35.7	20.7	19.3	22.2	44.3	22.7	26.7	12.4	23.4	29.2	28.7	38.1	19.2	29.6
Administration		11.6	2.0	1.3	5.2	1.1	2.1	2.0	2.1	4.8	4.8	4.8	12.0	3.7	7.0
Prof. Services		10.8	8.1	4.9	12.5	4.8	3.8	6.0	5.8	8.1	12.1	11.7	9.5	8.4	10.1
Other		3.0	3.4	3.8	7.3	2.0	1.0	3.0	3.5	6.5	4.7	4.8	1.6	3.3	3.3
Secondary Activity															
R & D	%	26.5	18.5	14.7	25.4	38.8	20.4	23.8	14.1	16.1	28.8	27.7	31.6	20.2	27.2
Teaching		13.9	5.4	4.9	10.3	17.7	16.7	11.7	12.5	6.5	13.6	13.0	17.1	15.9	15.2
Administration		8.6	9.8	18.8	8.6	4.3	7.9	9.9	11.0	11.3	9.0	9.2	8.6	9.6	9.1
Prof. Services		7.5	11.1	6.2	8.6	7.7	7.8	8.0	9.0	11.3	8.8	9.1	10.0	6.9	8.8
Other		2.5	1.0	2.2	0.9	1.1	1.4	1.4	2.8	1.6	1.4	1.4	1.7	2.2	1.7
No Secondary Activity		30.2	41.8	46.7	37.1	20.1	38.4	36.3	41.6	38.7	29.1	30.0	22.2	32.3	27.8
Activity(ies) Unknown	%	10.7	12.5	6.5	9.1	10.3	7.4	8.8	9.0	14.5	9.1	9.6	8.7	12.8	10.1
Region of Employment After Doctorate§															
New England	%	5.8	7.1	7.4	6.5	7.0	3.4	6.1	5.1	11.3	5.6	6.1	4.9	2.0	4.6
Middle Atlantic		12.8	16.2	21.4	6.9	13.6	18.8	16.3	11.3	8.1	11.5	11.2	12.4	2.7	9.4
East No. Central		12.9	9.8	18.3	10.3	16.4	9.6	13.3	12.7	8.1	11.5	11.2	14.3	10.2	12.0
West No. Central		6.7	4.0	6.5	5.2	6.6	4.0	5.3	4.0	8.1	5.7	5.9	7.1	10.6	7.5
South Atlantic		15.0	9.8	13.8	12.9	11.4	13.8	12.5	10.7	21.0	14.4	15.0	14.4	9.5	13.4
East So. Central		4.4	2.0	2.7	2.2	2.8	1.8	2.3	2.4	4.8	3.1	3.3	3.8	4.9	3.9
West So. Central		8.1	8.8	6.7	9.1	5.9	6.6	7.1	7.8	9.7	8.8	8.9	10.2	5.3	8.4
Mountain		5.5	5.7	3.8	11.6	7.7	4.6	6.2	6.3	4.8	5.6	5.5	4.6	5.1	5.1
Pacific & Insular		11.9	19.2	10.3	12.1	11.8	20.2	14.8	17.6	12.9	13.3	13.3	9.8	9.1	11.0
U.S., Region Unknown		4.5	4.7	3.3	3.4	3.1	3.8	3.6	3.8	1.6	3.9	3.7	4.8	2.4	3.7
Foreign		12.3	12.1	5.8	19.8	13.6	13.0	12.2	17.8	8.1	16.4	15.7	13.7	38.1	20.6
Region Unknown		0.1	0.7	0.0	0.0	0.2	0.4	0.3	0.4	1.6	0.2	0.3	0.0	0.2	0.2

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences. Refer also to the explanatory note for this table.
*The method of median computation has been revised. See page 100 for more information.
†Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.
‡Includes only recipients with definite employment plans.
§Includes only recipients with definite employment plans. See Table A-3 explanatory note for regional definitions.

APPENDIX TABLE A-3 (Continued)

Psychology	Economics	Anthropology and Sociology	Political Sci./ Internat'l Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. and Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields ‖	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
3,267	**980**	**914**	**672**	**790**	**6,623**	**27,349**	**889**	**1,080**	**639**	**2,453**	**5,061**	**6,546**	**1,323**	**1,305**	**26**	**2,654**	**14,261**
37.1	75.9	44.5	72.0	52.3	49.2	67.5	62.7	42.6	40.5	54.6	51.7	38.4	71.6	54.9	65.4	63.3	47.8
62.9	24.1	55.5	28.0	47.7	50.8	32.5	37.3	57.4	59.5	45.4	48.3	61.6	28.4	45.1	34.6	36.7	52.2
90.1	42.7	73.7	67.9	68.9	76.0	58.7	84.5	85.6	63.2	77.5	78.6	86.8	64.9	77.0		70.8	80.9
2.9	12.1	7.9	7.1	8.0	6.0	13.1	4.4	4.0	15.3	6.4	6.6	3.3	7.8	5.4		6.7	5.1
4.4	42.6	15.9	21.3	21.6	15.4	26.0	9.4	8.9	19.6	14.0	12.8	7.7	25.5	14.8		20.2	11.8
2.6	2.7	2.5	3.7	1.5	2.6	2.1	1.7	1.6	1.9	2.2	1.9	2.3	1.8	2.8		2.3	2.2
46.3	52.9	53.7	56.7	55.9	50.5	54.8	53.3	50.1	53.8	51.7	51.9	62.0	63.5	58.2		60.7	58.2
41.0	39.3	38.1	33.6	34.4	38.8	36.6	38.5	41.1	38.8	38.5	39.1	27.5	27.7	30.8		29.4	31.9
12.7	7.9	8.2	9.7	9.6	10.7	8.6	8.2	8.8	7.4	9.8	9.0	10.5	8.8	11.0		9.9	9.9
33.5	32.2	36.6	33.9	37.4	34.1	32.2	35.5	35.3	34.8	35.6	35.4	43.8	35.7	39.6		37.6	39.7
60.2	56.6	46.5	51.5	21.0	52.2	61.3	56.9	69.5	51.3	52.1	56.6	37.0	35.3	26.9		30.9	42.8
76.4	76.5	88.3	83.8	90.8	80.5	71.6	87.5	87.5	86.4	86.1	86.7	93.3	86.4	93.5		89.9	90.3
9.6	9.6	12.1	10.8	13.0	10.5	9.3	12.1	11.8	11.1	12.0	12.0	19.9	12.1	15.3		13.5	15.5
7.2	7.0	8.7	7.9	7.9	7.5	6.9	8.8	8.3	8.0	8.4	8.4	8.2	7.2	8.2		7.6	8.2
27.2	5.7	17.8	10.3	10.9	19.1	37.6	11.1	5.6	8.8	8.3	8.3	4.5	2.9	4.7		3.8	5.7
18.9	3.4	11.6	6.4	5.7	12.7	19.6	7.9	3.1	3.0	3.9	4.3	1.5	1.4	2.0		1.7	2.5
4.3	1.6	4.5	2.5	3.9	3.7	14.7	1.1	0.3	2.8	1.5	1.3	1.2	0.8	1.5		1.2	1.2
2.7	0.2	0.3	0.1	0.5	1.5	1.1	0.0	0.4	0.9	0.6	0.5	0.4	0.2	0.2		0.2	0.4
1.3	0.5	1.4	1.2	0.8	1.1	2.2	2.1	1.8	2.0	2.3	2.1	1.5	0.6	1.0		0.8	1.6
62.4	86.5	75.1	82.1	81.6	72.0	54.3	80.3	86.3	84.4	83.3	83.5	86.6	90.2	86.4		88.1	85.8
23.4	48.8	53.7	63.7	49.2	38.5	23.2	64.1	74.5	75.9	66.3	68.9	68.3	70.3	57.0		63.3	67.6
13.3	13.6	6.1	3.7	9.0	10.8	18.4	5.5	3.8	3.0	4.9	4.5	4.9	13.2	6.7		10.1	5.8
7.8	10.7	4.3	5.4	9.4	7.7	5.3	3.4	0.2	0.2	1.2	1.2	5.0	2.3	5.4		4.0	3.5
10.8	3.2	4.9	3.0	7.2	7.7	2.9	2.2	1.8	1.3	6.0	3.8	3.9	1.1	13.2		7.1	4.5
7.1	10.3	6.0	6.4	6.8	7.3	4.6	5.1	6.0	4.1	4.9	5.1	4.5	3.3	4.1		3.7	4.5
10.3	7.8	7.1	7.6	7.5	8.9	8.1	8.5	8.1	6.9	8.4	8.2	8.9	6.9	8.9		8.1	8.5
18.9	4.3	10.7	5.1	5.7	12.6	25.3	6.1	3.3	3.3	4.3	4.3	2.5	2.0	2.5		2.2	3.1
8.4	1.4	7.1	5.2	5.2	6.5	12.3	5.1	2.2	5.5	4.0	4.0	2.0	1.0	2.2		1.6	2.6
39.9	59.5	44.6	50.4	52.2	46.0	33.2	46.9	49.6	50.7	48.7	48.8	62.5	67.4	60.9		63.9	57.9
22.6	27.0	30.4	31.7	29.5	26.1	21.2	33.4	36.7	33.6	34.6	34.7	24.0	22.8	25.5		24.2	27.8
1,303	**583**	**408**	**339**	**412**	**3,045**	**9,067**	**417**	**536**	**324**	**1,195**	**2,472**	**4,093**	**892**	**795**		**1,697**	**8,262**
16.0	46.9	29.4	23.9	27.8	26.2	45.1	12.9	4.6	7.6	8.0	8.1	5.8	29.6	10.2		20.5	9.5
17.5	29.4	43.9	50.4	39.6	30.0	24.7	60.0	74.4	77.9	64.0	67.4	35.7	48.4	49.0		48.5	47.8
4.8	3.4	6.9	5.9	10.1	5.6	4.3	4.8	6.4	2.2	4.6	4.7	33.6	5.8	10.1		7.8	19.6
51.7	5.5	6.4	4.4	7.5	25.6	13.3	4.6	1.5	0.6	6.7	4.4	9.6	5.4	13.7		9.4	8.0
2.0	3.9	2.7	2.1	3.2	2.6	3.1	3.4	2.6	0.9	4.7	3.5	2.4	2.2	5.3		3.7	3.0
21.5	27.9	38.1	39.1	31.8	28.3	23.5	43.5	45.7	53.9	34.7	41.1	19.7	43.2	32.6		38.1	29.9
15.8	23.8	17.6	18.9	16.0	18.0	14.7	9.1	5.5	6.5	9.5	8.2	12.1	26.8	16.7		22.0	13.0
10.0	7.5	7.2	6.6	8.0	8.5	9.6	4.7	7.2	6.3	8.6	7.3	8.1	4.4	9.1		6.7	7.6
8.5	6.0	3.4	2.1	8.5	6.6	8.0	2.9	4.9	2.2	5.8	4.6	9.1	3.3	8.6		5.7	7.1
3.5	1.5	2.2	1.2	2.2	2.5	2.2	3.4	1.7	1.2	6.9	4.4	2.5	0.8	1.9		1.4	2.8
32.7	22.5	20.6	18.9	21.6	26.1	32.6	22.1	24.6	19.1	22.4	22.4	35.5	12.9	19.5		16.0	27.6
8.0	10.8	10.8	13.3	11.9	10.0	9.5	14.4	10.4	10.8	12.1	11.9	13.0	8.6	11.7		10.1	12.1
5.0	8.4	9.1	8.6	6.1	6.7	5.8	8.4	6.9	11.4	6.4	7.5	5.1	6.1	3.9		5.0	5.8
16.0	11.1	11.5	13.0	10.0	13.3	12.7	17.5	13.8	16.0	13.6	14.6	11.6	13.2	13.1		13.2	12.8
13.5	6.5	12.5	10.3	10.9	11.3	12.2	16.1	14.6	16.0	12.7	14.1	14.1	12.3	10.8		11.7	13.6
6.6	2.9	6.9	7.1	6.6	6.0	5.6	4.8	7.3	5.9	7.4	6.7	9.2	5.4	7.5		6.4	7.9
15.3	26.9	13.5	18.0	18.9	18.1	14.1	12.5	18.1	13.9	13.8	14.5	17.0	16.0	14.2		15.2	15.9
4.7	1.9	5.6	3.8	4.6	4.2	3.3	5.3	5.6	5.2	4.4	4.9	5.7	5.7	7.9		6.7	5.7
8.8	2.1	6.1	5.0	7.5	6.6	7.4	5.0	6.5	6.5	9.0	7.4	9.3	10.2	11.1		10.5	9.0
5.3	1.5	6.1	5.3	5.6	4.7	5.5	4.3	6.0	3.7	4.8	4.8	6.4	4.7	4.8		4.8	5.6
14.2	6.3	11.5	10.0	11.9	11.6	13.7	13.2	10.1	10.2	11.0	11.0	9.8	8.5	9.6		9.0	10.0
7.2	1.0	4.9	2.9	4.1	4.8	4.1	5.0	5.4	2.8	4.4	4.5	5.7	2.5	4.2		3.2	4.8
3.5	31.0	12.3	15.9	13.8	12.7	15.4	7.9	5.8	8.3	12.6	9.7	6.0	15.2	12.8		14.1	8.8
0.0	0.2	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.1	0.0	0.1	0.1	0.1		0.1	0.1

‖ Statistics are not presented for this group because too few records contained the specific data.

APPENDIX TABLE A-3 (Continued)

Doctorates: Men

		1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos. and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES	ENGINEERING	Biochemistry	Other Biosciences	Biosciences Subtotal	Health Sciences	Agricultural Sciences	LIFE SCIENCES
Total Men		**25,277**	**1,440**	**1,500**	**630**	**925**	**812**	**5,307**	**5,313**	**483**	**2,673**	**3,156**	**487**	**942**	**4,585**
Men as a Percent of Total Doctorates	%	60.7	87.2	69.4	78.3	77.7	81.4	78.0	88.4	58.5	58.8	58.8	36.6	77.7	57.9
U.S. Citizenship	%	59.0	53.9	55.2	60.2	45.6	45.3	52.3	37.8	56.9	64.7	63.5	54.0	46.0	58.9
Non-U.S., Permanent Visa		11.5	17.8	17.2	13.3	17.9	13.1	16.4	15.2	16.8	14.3	14.6	12.7	10.0	13.5
Non-U.S., Temporary Visa		27.1	26.7	25.2	25.1	32.9	39.7	29.1	44.5	24.2	19.4	20.1	29.2	43.2	25.8
Unknown		2.4	1.7	2.4	1.4	3.6	2.0	2.2	2.5	2.1	1.6	1.7	4.1	0.8	1.8
Married	%	58.9	50.5	54.4	61.7	52.9	54.3	53.9	59.1	54.2	57.3	56.8	61.0	57.1	59.4
Not Married		32.5	43.2	37.6	32.2	39.1	37.2	38.7	32.6	38.1	35.8	36.2	25.5	24.4	32.6
Unknown		8.6	6.3	8.0	6.0	8.0	8.5	7.4	8.3	7.7	6.9	7.0	13.6	8.5	8.0
Median Age at Doct.*	Yrs	33.2	30.5	30.5	33.6	31.2	31.9	31.2	31.8	30.3	31.8	31.6	35.0	34.3	32.3
Percent with Bacc. in Same Field as Doctorate	%	57.6	72.7	76.3	54.8	70.9	43.0	66.7	79.9	22.6	53.4	48.7	31.0	60.7	49.3
Percent with Masters	%	77.3	65.6	45.5	81.7	73.5	87.3	66.6	87.1	30.4	48.9	46.1	78.0	89.2	58.3
Median Time Lapse from Bacc. to Doct.*															
Total Time	Yrs	10.2	8.0	7.7	10.8	8.6	9.2	8.5	9.2	7.6	9.0	8.7	11.4	11.0	9.3
Registered Time		7.0	6.9	6.3	7.7	6.9	7.2	6.9	6.4	6.5	7.0	6.9	7.2	6.5	6.8
Postdoctoral Study Plans	%	28.9	59.3	58.9	45.2	27.8	16.6	45.5	23.6	81.2	71.4	72.9	25.3	33.0	59.6
Fellowship		14.0	24.2	28.1	19.8	12.8	7.4	20.2	7.8	51.8	41.6	43.2	12.9	9.7	33.1
Research Assoc.		12.1	33.3	28.5	24.6	11.6	8.3	23.3	13.8	20.5	19.4	19.6	9.2	21.9	19.0
Traineeship		0.8	0.5	0.7	0.3	0.6	0.1	0.5	1.0	2.7	2.0	2.1	1.2	0.7	1.7
Other Study		2.1	1.3	1.6	0.5	2.8	0.9	1.5	1.0	6.2	8.3	8.0	1.8	0.7	5.8
Planned Employment After Doctorate	%	62.7	33.0	33.5	47.0	63.0	74.5	46.4	67.5	12.2	23.2	21.5	61.6	58.9	33.4
Educ. Institution†		33.3	8.6	6.5	17.5	43.1	30.3	18.4	16.4	3.1	11.7	10.4	33.1	24.4	15.7
Industry/Business		17.5	17.5	22.5	13.5	13.6	35.7	20.6	39.6	7.2	5.6	5.8	15.0	16.2	8.9
Government		5.0	2.9	1.5	9.0	2.1	3.2	3.1	6.1	0.8	3.2	2.9	7.2	10.8	5.0
Nonprofit		2.9	0.5	0.3	1.6	0.6	1.1	0.7	1.1	0.0	1.1	1.0	3.7	1.8	1.4
Other & Unknown		4.0	3.5	2.7	5.4	3.6	4.2	3.6	4.3	1.0	1.5	1.5	2.7	5.6	2.4
Postdoc. Plans Unknown	%	8.3	7.7	7.7	7.8	9.2	8.9	8.1	8.9	6.6	5.5	5.6	13.1	8.1	6.9
Definite Postdoc. Study	%	19.2	40.3	42.1	26.7	17.5	11.3	30.8	12.7	63.6	52.6	54.3	16.8	17.4	42.7
Seeking Postdoc. Study		9.8	19.0	16.7	18.6	10.3	5.3	14.7	10.9	17.6	18.7	18.6	8.4	15.6	16.9
Definite Employment		39.5	17.4	19.9	28.9	37.0	49.0	27.7	37.9	7.0	15.2	13.9	43.1	39.0	22.2
Seeking Employment		23.2	15.6	13.6	18.1	26.1	25.5	18.7	29.6	5.2	8.0	7.6	18.5	20.0	11.3
Employment Commitments After Doctorate		**9,988**	**251**	**298**	**182**	**342**	**398**	**1,471**	**2,015**	**34**	**405**	**439**	**210**	**367**	**1,016**
Primary Work Activity‡															
R & D	%	35.7	55.0	70.0	44.8	40.9	67.2	56.8	67.4	52.9	42.0	42.8	41.7	53.7	46.5
Teaching		30.7	17.9	12.2	22.8	40.4	18.8	22.8	11.8	5.9	26.2	24.6	30.2	17.6	23.2
Administration		9.7	1.6	1.3	5.5	1.5	1.9	2.1	2.3	2.9	4.7	4.6	8.6	3.7	5.1
Prof. Services		9.3	9.2	5.0	13.2	4.7	3.8	6.3	6.2	11.8	14.1	13.9	9.0	9.3	11.2
Other		3.3	3.2	4.4	4.4	2.0	1.0	2.7	3.6	5.9	4.0	4.1	1.4	3.3	3.2
Secondary Activity															
R & D	%	23.9	16.7	14.1	25.8	33.8	17.3	21.4	13.7	8.8	27.4	26.0	26.9	19.2	23.7
Teaching		14.6	4.8	4.4	10.4	19.6	16.7	12.1	12.3	5.9	14.8	14.1	19.3	16.3	16.0
Administration		9.3	9.2	21.5	8.8	4.8	8.4	10.4	11.3	20.6	8.6	9.6	10.5	9.1	9.6
Prof. Services		7.7	11.2	6.0	8.8	8.8	8.0	8.4	9.2	14.7	8.1	8.7	7.1	7.6	8.0
Other		2.3	1.2	2.7	0.0	1.5	1.5	1.5	2.9	0.0	0.7	0.7	2.9	1.6	1.5
No Secondary Activity		31.0	43.8	44.3	36.8	21.1	40.7	36.9	42.0	29.4	31.1	31.0	24.3	33.5	30.5
Activity(ies) Unknown	%	11.3	13.1	7.0	9.3	10.5	7.3	9.2	8.7	20.6	9.1	10.0	9.0	12.5	10.7
Region of Employment After Doctorate§															
New England	%	5.7	7.6	6.4	4.4	6.7	3.5	5.6	5.5	8.8	6.2	6.4	4.8	2.2	4.5
Middle Atlantic		12.1	16.3	22.1	7.7	12.9	18.8	16.3	10.7	11.8	11.4	11.4	11.4	2.7	8.3
East No. Central		12.3	8.8	19.1	9.9	16.7	9.3	13.0	12.3	11.8	10.1	10.3	11.0	10.4	10.4
West No. Central		6.2	3.6	6.0	4.9	5.8	4.8	5.1	3.9	11.8	6.4	6.8	7.6	10.6	8.4
South Atlantic		13.6	8.8	12.4	13.2	10.8	12.8	11.6	10.3	11.8	12.8	12.8	12.4	8.2	11.0
East So. Central		4.1	1.6	3.0	2.7	2.0	0.8	1.9	2.5	2.9	3.5	3.4	2.9	4.9	3.8
West So. Central		8.0	9.6	7.0	9.3	6.4	6.5	7.5	7.9	11.8	9.4	9.6	10.0	5.4	8.2
Mountain		5.6	5.2	4.0	11.0	7.0	4.8	6.0	6.0	0.0	6.2	5.7	6.2	5.2	5.6
Pacific & Insular		12.3	19.9	9.7	10.4	12.6	20.6	15.2	17.3	11.8	12.8	12.8	7.6	9.0	10.3
U.S., Region Unknown		3.8	4.8	4.7	2.7	3.2	3.8	3.9	3.8	2.9	3.5	3.4	5.2	2.5	3.4
Foreign		16.1	13.1	5.4	23.6	15.5	13.8	13.6	19.5	11.8	17.5	17.1	21.0	38.7	25.7
Region Unknown		0.2	0.8	0.0	0.0	0.3	0.5	0.3	0.4	2.9	0.2	0.5	0.0	0.3	0.3

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences. Refer also to the explanatory note for this table.

*The method of median computation has been revised. See page 100 for more information.

†Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.

‡Includes only recipients with definite employment plans.

§Includes only recipients with definite employment plans. See Table A-3 explanatory note for regional definitions.

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APPENDIX TABLE A-3 (Continued)

Psychology	Economics	Anthropology and Sociology	Political Sci./ Internat'l Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. and Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields ‖	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
1,213	**744**	**407**	**484**	**413**	**3,261**	**18,466**	**557**	**460**	**259**	**1,340**	**2,616**	**2,514**	**947**	**717**	**17**	**1,681**	**6,811**
37.1	75.9	44.5	72.0	52.3	49.2	67.5	62.7	42.6	40.5	54.6	51.7	38.4	71.6	54.9	65.4	63.3	47.8
87.7	39.4	67.3	66.3	60.8	67.6	52.4	84.4	82.2	60.6	77.3	78.0	83.8	59.1	70.6		64.0	76.7
2.7	11.8	9.8	7.6	9.0	7.2	13.7	4.8	4.1	12.4	5.3	5.7	3.7	8.0	7.4		7.7	5.5
6.2	45.7	19.9	22.1	27.8	22.0	31.5	9.5	11.7	23.9	14.9	14.1	9.7	30.7	18.4		25.5	15.3
3.4	3.1	2.9	3.9	2.4	3.2	2.4	1.3	2.0	3.1	2.5	2.2	2.7	2.1	3.6		2.8	2.5
47.8	54.7	60.7	59.5	62.5	54.6	56.9	57.8	53.7	54.1	55.7	55.6	70.6	67.7	68.6		67.8	64.1
38.3	37.4	31.2	31.4	28.6	34.9	34.8	35.2	37.4	37.5	35.0	35.7	19.5	23.8	19.8		22.2	26.4
13.9	7.9	8.1	9.1	9.0	10.5	8.3	7.0	8.9	8.5	9.3	8.7	10.0	8.6	11.6		9.9	9.5
33.2	32.5	36.9	33.9	36.2	33.9	32.0	35.7	34.7	35.3	35.5	35.4	43.2	35.7	39.0		37.1	38.6
60.8	55.1	47.2	52.3	22.5	51.7	63.5	59.2	70.9	49.4	53.4	57.3	32.3	35.4	26.9		31.5	41.7
76.0	76.6	87.7	83.3	90.1	80.5	72.9	88.2	85.4	85.3	85.4	86.0	92.7	86.8	94.3		89.9	89.4
9.3	9.7	12.2	10.6	12.0	10.3	9.2	12.2	11.3	11.2	11.6	11.7	19.0	12.0	14.7		13.0	14.3
7.1	7.0	8.9	7.9	7.8	7.4	6.8	8.8	8.0	7.6	8.2	8.3	8.2	7.2	8.4		7.6	8.0
27.2	5.6	15.7	9.9	11.6	16.3	37.6	9.0	6.7	7.3	8.1	8.0	4.5	2.5	5.0		3.6	5.6
19.6	3.1	10.6	6.4	6.1	11.0	18.2	5.7	3.5	2.3	3.6	3.9	1.6	1.3	1.8		1.5	2.5
5.2	1.7	3.9	2.5	4.1	3.7	16.0	1.1	0.2	2.3	1.9	1.5	1.2	0.7	2.0		1.2	1.3
1.3	0.1	0.2	0.0	0.5	0.6	1.0	0.0	0.7	1.2	0.4	0.4	0.5	0.1	0.1		0.1	0.4
1.1	0.7	1.0	1.0	1.0	1.0	2.3	2.2	2.4	1.5	2.3	2.2	1.1	0.4	1.1		0.7	1.4
61.3	85.9	77.1	81.6	81.4	74.5	54.2	83.5	83.7	85.7	83.0	83.5	86.8	90.6	84.9		88.0	85.8
24.2	48.8	57.7	63.0	46.0	42.5	21.4	65.5	72.0	75.3	64.5	67.1	67.5	69.2	50.9		60.9	65.7
13.1	14.1	5.2	4.3	10.9	10.8	21.4	5.6	4.6	3.9	5.4	5.2	5.5	14.9	5.2		10.8	6.7
9.5	11.7	4.9	5.8	11.1	9.1	5.5	4.7	0.2	0.4	1.3	1.8	5.3	3.0	5.7		4.2	3.7
9.6	2.6	4.2	2.7	7.0	5.9	1.9	2.9	2.2	1.5	7.4	4.9	4.0	0.8	20.2		9.1	5.6
4.9	8.7	5.2	5.8	6.3	6.1	4.0	4.8	4.8	4.6	4.3	4.5	4.4	2.7	2.9		2.9	4.1
11.5	8.5	7.1	8.5	7.0	9.2	8.2	7.5	9.6	6.9	8.9	8.5	8.8	6.9	10.0		8.4	8.6
19.7	3.9	9.1	5.0	5.3	10.8	25.0	5.4	3.7	3.9	4.9	4.7	2.6	1.8	2.8		2.2	3.3
7.5	1.7	6.6	5.0	6.3	5.6	12.5	3.6	3.0	3.5	3.2	3.3	1.9	0.7	2.2		1.4	2.3
40.9	57.7	43.0	48.8	53.8	47.8	32.8	46.0	45.9	50.6	48.9	47.9	63.7	66.9	60.5		63.8	57.7
20.4	28.2	34.2	32.9	27.6	26.7	21.4	37.5	37.8	35.1	34.1	35.6	23.0	23.7	24.4		24.2	28.1
496	**429**	**175**	**236**	**222**	**1,558**	**6,060**	**256**	**211**	**131**	**655**	**1,253**	**1,602**	**634**	**434**		**1,073**	**3,928**
18.0	47.2	31.4	22.9	32.4	30.4	51.8	14.6	5.5	6.9	7.5	8.5	5.7	29.8	9.0		21.3	10.9
17.8	28.6	39.4	48.9	37.6	30.7	21.3	56.1	73.2	76.7	60.8	63.6	30.3	47.1	44.2		45.8	45.2
4.4	4.2	8.6	6.1	8.3	5.6	3.6	5.5	6.6	4.2	4.1	4.8	38.0	6.4	10.1		7.9	19.2
48.4	5.6	5.1	4.2	5.9	19.0	10.4	4.3	0.9	1.5	8.1	5.4	8.0	5.7	14.7		9.5	7.6
1.6	3.3	2.9	3.0	3.2	2.6	3.1	4.3	4.3	0.8	5.6	4.6	2.2	2.7	8.1		4.9	3.7
20.6	26.2	36.3	35.8	27.9	27.2	20.7	36.7	45.0	51.9	31.8	37.1	16.8	41.6	29.0		36.5	28.7
17.4	23.5	20.0	16.1	18.0	19.3	14.6	10.9	5.5	7.6	9.8	9.1	13.6	25.9	16.7		22.1	14.5
11.4	8.7	8.9	6.6	7.2	9.1	10.2	5.1	7.8	5.3	9.9	8.1	8.1	5.4	9.6		7.2	7.9
9.3	5.6	3.4	3.0	9.0	6.6	8.1	3.9	7.1	3.1	6.6	5.7	8.9	3.3	9.0		5.6	7.0
3.6	1.9	1.1	0.8	1.8	2.2	2.1	4.3	2.4	2.3	7.5	5.4	1.4	0.9	1.2		1.0	2.6
28.0	22.8	17.7	22.9	23.4	24.0	34.2	23.8	22.7	19.8	20.6	21.5	35.5	14.5	20.7		17.1	26.0
9.7	11.2	12.6	14.8	12.6	11.6	9.9	15.2	9.5	9.9	13.9	13.0	15.7	8.4	13.8		10.5	13.4
4.8	6.8	9.7	8.9	4.1	6.4	5.6	9.4	7.6	9.9	6.3	7.5	4.7	6.6	3.7		5.4	5.8
14.9	11.0	9.7	12.3	9.9	12.1	12.0	16.4	13.7	13.7	12.4	13.6	11.2	12.8	10.8		12.1	12.2
15.5	6.5	12.0	9.3	9.9	10.9	11.8	15.6	14.7	15.3	12.4	13.7	14.4	11.0	10.6		10.8	13.2
6.5	3.3	5.7	4.2	5.0	4.9	5.2	3.9	6.6	7.6	6.7	6.2	9.9	5.0	8.1		6.2	7.7
16.5	23.8	8.0	16.9	19.4	18.0	12.7	14.5	16.1	12.2	13.3	13.9	15.7	16.4	12.0		14.6	14.8
4.6	1.9	7.4	4.7	6.3	4.4	3.1	5.1	6.6	9.2	5.6	6.1	4.9	5.8	7.6		6.5	5.7
9.3	1.9	6.3	5.5	6.3	5.9	7.3	5.9	6.2	6.9	9.2	7.7	9.1	9.5	12.2		10.5	9.1
4.8	1.2	8.0	6.4	4.1	4.3	5.5	3.9	5.2	4.6	5.2	4.9	7.1	4.7	4.6		4.7	5.7
13.5	7.0	10.9	11.0	13.5	11.0	14.0	12.5	9.5	5.3	10.8	10.4	10.1	7.7	8.5		8.0	9.6
4.6	0.9	4.6	3.4	3.6	3.3	3.6	4.3	6.2	3.1	4.1	4.4	4.5	2.5	4.1		3.2	4.1
4.8	35.9	17.7	17.4	18.0	18.6	18.9	8.6	7.6	12.2	13.9	11.6	8.4	17.7	17.5		17.7	11.9
0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.0	0.0	0.0	0.2	0.1	0.1	0.2	0.2		0.2	0.1

‖ Statistics are not presented for this group because too few records contained the specific data.

APPENDIX TABLE A-3 (Continued)

Doctorates: Women

		1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos. and Marine Sci.	Mathematics	Computer Sciences	PHYSICAL SCIENCES	ENGINEERING	Biochemistry	Other Biosciences	Biosciences Subtotal	Health Sciences	Agricultural Sciences	LIFE SCIENCES
Total Women		**16,333**	**212**	**661**	**175**	**265**	**186**	**1,499**	**694**	**342**	**1,872**	**2,214**	**844**	**270**	**3,328**
Women as a Percent of Total Doctorates	%	39.3	12.8	30.6	21.7	22.3	18.6	22.0	11.6	41.5	41.2	41.2	63.4	22.3	42.1
U.S. Citizenship	%	77.7	50.9	61.9	65.1	49.8	62.4	58.6	53.9	58.2	68.6	67.0	80.0	50.4	69.0
Non-U.S., Permanent Visa		8.6	28.3	19.4	18.9	19.2	14.5	19.9	20.7	23.1	15.5	16.7	5.3	9.6	13.3
Non-U.S., Temporary Visa		12.0	20.3	17.4	13.7	29.4	23.1	20.2	22.9	17.0	14.9	15.2	12.2	38.5	16.3
Unknown		1.7	0.5	1.4	2.3	1.5	0.0	1.2	2.4	1.8	1.0	1.1	2.5	1.5	1.5
Married	%	51.5	50.0	50.5	50.3	54.0	62.4	52.5	55.5	57.3	51.0	52.0	54.9	48.9	52.5
Not Married		38.9	39.6	41.6	41.1	38.1	27.4	38.9	36.7	34.8	42.6	41.4	34.8	41.1	39.7
Unknown		9.6	10.4	7.9	8.6	7.9	10.2	8.6	7.8	7.9	6.4	6.6	10.3	10.0	7.8
Median Age at Doct.*	Yrs	35.6	30.3	29.4	33.7	30.7	33.8	30.5	30.7	30.3	31.4	31.2	40.2	34.1	32.6
Percent with Bacc. in Same Field as Doctorate	%	50.9	76.4	75.3	42.9	76.2	34.4	66.8	73.1	27.2	56.9	52.3	56.9	45.2	52.9
Percent with Masters	%	79.1	67.5	42.2	75.4	79.6	90.9	62.3	81.8	37.7	43.0	42.2	88.7	86.7	57.6
Median Time Lapse from Bacc. to Doct.*															
Total Time	Yrs	12.0	8.2	7.0	10.7	8.5	11.0	8.2	8.3	8.0	8.8	8.6	15.7	11.0	9.9
Registered Time		7.5	6.9	6.0	7.8	6.6	7.9	6.7	6.2	6.9	6.9	6.9	7.7	6.6	7.0
Postdoctoral Study Plans	%	23.2	54.7	50.8	46.9	21.1	15.6	41.3	22.0	81.3	71.7	73.2	16.9	31.5	55.6
Fellowship		13.4	20.3	22.8	24.0	11.7	8.6	18.9	10.2	52.0	46.2	47.1	10.1	10.7	34.8
Research Assoc.		7.0	32.5	26.2	22.3	6.8	5.4	20.6	10.7	22.5	20.1	20.5	4.7	18.1	16.3
Traineeship		1.0	0.5	0.0	0.0	0.8	0.0	0.2	0.4	1.5	1.7	1.7	0.7	1.9	1.4
Other Study		1.8	1.4	1.8	0.6	1.9	1.6	1.6	0.7	5.3	3.7	4.0	1.4	0.7	3.1
Planned Employment After Doctorate	%	68.8	37.3	41.0	44.0	70.9	75.3	50.4	70.5	12.6	23.2	21.5	74.2	59.3	38.0
Educ. Institution†		46.2	16.5	12.1	18.3	52.1	43.0	24.3	23.8	5.3	11.0	10.1	46.9	25.9	20.7
Industry/Business		8.8	13.2	21.3	8.6	10.6	22.6	16.9	35.2	4.1	5.2	5.1	7.8	11.5	6.3
Government		4.2	4.2	2.1	12.6	2.6	2.2	3.7	4.8	1.5	2.7	2.5	6.8	9.3	4.1
Nonprofit		4.2	0.5	0.5	0.6	0.8	3.2	0.9	1.2	0.6	1.6	1.4	7.5	1.9	3.0
Other & Unknown		5.4	2.8	5.0	4.0	4.9	4.3	4.5	5.6	1.2	2.7	2.5	5.2	10.7	3.8
Postdoc. Plans Unknown	%	8.0	8.0	8.2	9.1	7.9	9.1	8.3	7.5	6.1	5.1	5.2	8.9	9.3	6.5
Definite Postdoc. Study	%	15.4	35.8	36.3	26.9	12.8	10.8	27.8	12.4	60.2	52.8	53.9	9.7	17.0	39.7
Seeking Postdoc. Study		7.7	18.9	14.5	20.0	8.3	4.8	13.5	9.7	21.1	19.0	19.3	7.2	14.4	15.8
Definite Employment		44.9	21.7	22.7	28.6	43.4	54.8	30.9	40.9	8.2	12.8	12.1	49.8	31.5	23.2
Seeking Employment		23.9	15.6	18.3	15.4	27.5	20.4	19.5	29.5	4.4	10.4	9.4	24.4	27.8	14.7
Employment Commitments After Doctorate		**7,341**	**46**	**150**	**50**	**115**	**102**	**463**	**284**	**28**	**240**	**268**	**420**	**85**	**773**
Primary Activity															
R & D	%	17.8	44.6	52.7	40.0	27.4	46.6	42.9	65.7	30.4	36.9	36.2	24.3	47.6	31.0
Teaching		42.6	35.9	33.3	20.0	56.1	37.7	38.8	16.4	44.6	34.4	35.4	42.0	26.5	38.0
Administration		14.1	4.3	1.3	4.0	0.0	2.9	1.9	1.1	7.1	5.0	5.2	13.7	3.5	9.6
Prof. Services		12.9	2.2	4.7	10.0	5.2	3.9	5.0	3.2	3.6	8.8	8.2	9.8	4.7	8.7
Other		2.6	4.3	2.7	18.0	1.7	1.0	3.9	2.8	7.1	5.8	6.0	1.7	3.5	3.4
Secondary Activity															
R & D	%	30.2	28.3	16.0	24.0	53.9	32.4	31.1	16.7	25.0	31.2	30.6	33.9	24.7	31.8
Teaching		12.9	8.7	6.0	10.0	12.2	16.7	10.6	14.1	7.1	11.7	11.2	16.1	14.1	14.2
Administration		7.7	13.0	13.3	8.0	2.6	5.9	8.4	9.0	0.0	9.6	8.6	7.6	11.8	8.4
Prof. Services		7.3	10.9	6.7	8.0	4.3	6.9	6.7	8.1	7.1	10.0	9.7	11.4	3.5	10.0
Other		2.8	0.0	1.3	4.0	0.0	1.0	1.1	2.1	3.6	2.5	2.6	1.2	4.7	2.1
No Secondary Activity		29.1	30.4	51.3	38.0	17.4	29.4	34.6	39.1	50.0	25.8	28.4	21.2	27.1	24.3
Activity(ies) Unknown	%	10.0	8.7	5.3	8.0	9.6	7.8	7.6	10.9	7.1	9.2	9.0	8.6	14.1	9.3
Region of Employment After Doctorate§															
New England	%	6.0	4.3	9.3	14.0	7.8	2.9	7.6	2.8	14.3	4.6	5.6	5.0	1.2	4.8
Middle Atlantic		13.6	15.2	20.0	4.0	15.7	18.6	16.4	15.5	3.6	11.7	10.8	12.9	2.4	11.0
East No. Central		13.6	15.2	16.7	12.0	15.7	10.8	14.5	15.5	3.6	13.8	12.7	16.0	9.4	14.1
West No. Central		7.4	6.5	7.3	6.0	8.7	1.0	6.0	4.6	3.6	4.6	4.5	6.9	10.6	6.5
South Atlantic		16.9	15.2	16.7	12.0	13.0	17.6	15.3	13.4	32.1	17.1	18.7	15.5	15.3	16.6
East So. Central		4.8	4.3	2.0	0.0	5.2	5.9	3.7	1.8	7.1	2.5	3.0	4.3	4.7	3.9
West So. Central		8.3	4.3	6.0	8.0	4.3	6.9	5.8	7.0	7.1	7.9	7.8	10.2	4.7	8.8
Mountain		5.5	8.7	3.3	14.0	9.6	3.9	6.7	8.5	10.7	4.6	5.2	3.8	4.7	4.4
Pacific & Insular		11.4	15.2	11.3	18.0	9.6	18.6	13.6	20.1	14.3	14.2	14.2	11.0	9.4	11.9
U.S., Region Unknown		5.3	4.3	0.7	6.0	2.6	3.9	2.8	4.2	0.0	4.6	4.1	4.5	2.4	4.1
Foreign		7.0	6.5	6.7	6.0	7.8	9.8	7.6	6.0	3.6	14.6	13.4	10.0	35.3	14.0
Region Unknown		0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Physical Sciences includes Mathematics and Computer Sciences, as well as Physics/Astronomy, Chemistry, and Earth/Atmospheric/Marine Sciences. Refer also to the explanatory note for this table.
*The method of median computation has been revised. See page 100 for more information.
†Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.
‡Includes only recipients with definite employment plans.
§Includes only recipients with definite employment plans. See Table A-3 explanatory note for regional definitions.

APPENDIX TABLE A-3 (Continued)

Psychology	Economics	Anthropology and Sociology	Political Sci./ Internat'l Rel.	Other Social Sciences	SOCIAL SCI. INCL. PSYCH.	TOTAL SCIENCES & ENGINEERING	History	Eng. and Amer. Lang. and Lit.	Foreign Lang. and Lit.	Other Humanities	HUMANITIES	EDUCATION	Business and Management	Other Professional Fields	Other Fields ‖	PROFESSIONAL/ OTHER FIELDS	TOTAL NONSCIENCES
2,054	**236**	**507**	**188**	**377**	**3,362**	**8,883**	**332**	**620**	**380**	**1,113**	**2,445**	**4,032**	**376**	**588**	**9**	**973**	**7,450**
62.9	24.1	55.5	28.0	47.7	50.8	32.5	37.3	57.4	59.5	45.4	48.3	61.6	28.4	45.1	34.6	36.7	52.2
91.4	53.0	78.9	71.8	77.7	84.2	71.8	84.6	88.1	65.0	77.6	79.3	88.6	79.5	84.9		82.6	84.8
3.0	13.1	6.3	5.9	6.9	4.8	11.8	3.6	3.9	17.4	7.6	7.6	3.0	7.2	3.1		4.8	4.8
3.4	32.6	12.6	19.1	14.9	9.0	14.7	9.3	6.8	16.6	12.9	11.5	6.4	12.2	10.4		11.1	8.7
2.1	1.3	2.2	3.2	0.5	2.0	1.7	2.4	1.3	1.1	1.8	1.6	2.0	1.1	1.7		1.4	1.8
45.4	47.0	48.1	49.5	48.8	46.5	50.5	45.8	47.4	53.7	46.9	47.9	56.7	52.9	45.6		48.5	52.8
42.6	45.3	43.6	39.4	40.8	42.6	40.4	44.0	43.9	39.7	42.8	42.7	32.5	37.5	44.2		41.6	37.0
11.9	7.6	8.3	11.2	10.3	10.9	9.1	10.2	8.7	6.6	10.3	9.3	10.8	9.6	10.2		9.9	10.2
33.6	31.5	36.4	33.7	39.0	34.3	32.5	35.4	35.7	34.5	35.7	35.4	44.2	35.9	40.5		38.7	40.9
59.9	61.4	46.0	49.5	19.4	52.8	56.8	53.0	68.5	52.6	50.5	55.7	40.0	35.1	26.9		29.9	43.8
76.7	76.3	88.8	85.1	91.5	80.6	69.0	86.4	89.0	87.1	87.1	87.5	93.7	85.4	92.5		89.8	91.2
9.7	9.3	12.0	10.9	14.9	10.6	9.6	12.0	12.0	11.1	12.6	12.1	20.3	12.7	16.1		14.7	16.9
7.3	7.0	8.5	8.0	8.0	7.6	7.0	8.9	8.4	8.2	8.6	8.5	8.3	7.0	8.0		7.6	8.3
27.2	5.9	19.5	11.2	10.1	21.7	37.7	14.8	4.7	9.7	8.5	8.6	4.5	4.0	4.3		4.2	5.8
18.4	4.2	12.4	6.4	5.3	14.4	22.4	11.4	2.9	3.4	4.2	4.7	1.4	1.6	2.2		2.0	2.6
3.8	1.3	4.9	2.7	3.7	3.7	11.8	1.2	0.3	3.2	1.1	1.2	1.1	0.8	1.0		1.0	1.1
3.5	0.4	0.4	0.5	0.5	2.3	1.5	0.0	0.2	0.8	0.9	0.6	0.3	0.5	0.2		0.3	0.4
1.5	0.0	1.8	1.6	0.5	1.3	2.0	2.1	1.3	2.4	2.3	2.0	1.7	1.1	0.9		0.9	1.7
63.1	88.6	73.4	83.5	82.0	69.7	54.6	75.0	88.2	83.4	83.6	83.6	86.4	89.1	88.3		88.4	85.8
22.9	48.7	50.5	65.4	52.8	34.6	26.8	61.7	76.5	76.3	68.6	70.8	68.7	73.1	64.5		67.4	69.2
13.3	11.9	6.9	2.1	6.9	10.9	12.1	5.4	3.2	2.4	4.3	3.9	4.6	8.8	8.5		8.7	4.9
6.9	7.6	3.7	4.3	7.4	6.4	5.0	1.2	0.2	0.0	1.0	0.7	4.8	0.8	5.1		3.5	3.3
11.6	5.1	5.5	3.7	7.4	9.3	4.9	1.2	1.5	1.1	4.2	2.6	3.8	1.9	4.6		3.6	3.4
8.4	15.3	6.7	8.0	7.4	8.5	5.9	5.4	6.9	3.7	5.6	5.6	4.5	4.5	5.6		5.1	4.9
9.7	5.5	7.1	5.3	8.0	8.6	7.7	10.2	7.1	6.8	7.8	7.8	9.1	6.9	7.5		7.4	8.4
18.4	5.5	12.0	5.3	6.1	14.4	26.0	7.2	3.1	2.9	3.5	3.8	2.5	2.4	2.0		2.3	2.9
8.9	0.4	7.5	5.9	4.0	7.3	11.7	7.5	1.6	6.8	5.0	4.8	2.1	1.6	2.2		2.0	2.9
39.3	65.3	46.0	54.8	50.4	44.2	33.9	48.5	52.4	50.8	48.5	49.9	61.8	68.6	61.4		64.1	58.2
23.8	23.3	27.4	28.7	31.6	25.5	20.7	26.5	35.8	32.6	35.1	33.7	24.7	20.5	26.9		24.3	27.6
807	**154**	**233**	**103**	**190**	**1,487**	**3,007**	**161**	**325**	**193**	**540**	**1,219**	**2,491**	**258**	**361**		**624**	**4,334**
14.7	46.1	27.9	26.2	22.4	21.8	31.6	10.2	4.0	8.0	8.7	7.5	5.9	29.1	11.6		19.1	8.2
17.3	31.8	47.2	53.9	41.8	29.2	31.7	66.1	75.2	78.8	67.9	71.3	39.1	51.6	54.7		53.1	50.2
5.0	1.3	5.6	5.3	12.1	5.6	5.7	3.7	6.3	0.8	5.1	4.6	30.7	4.3	10.1		7.6	20.0
53.8	5.2	7.3	4.9	9.5	32.4	19.3	5.0	1.8	0.0	5.0	3.4	10.6	4.7	12.5		9.3	8.4
2.2	5.8	2.6	0.0	3.2	2.6	3.0	1.9	1.5	1.0	3.5	2.4	2.4	1.2	1.9		1.6	2.3
22.0	32.5	39.5	46.6	36.3	29.4	29.0	54.3	46.2	55.2	38.3	45.2	21.6	47.3	36.8		40.9	31.0
14.8	24.7	15.9	25.2	13.7	16.6	14.8	6.2	5.5	5.7	9.1	7.2	11.2	29.1	16.6		22.0	11.6
9.2	3.9	6.0	6.8	8.9	7.9	8.2	4.0	6.8	7.0	7.0	6.6	8.2	1.9	8.6		5.8	7.4
8.1	7.1	3.4	0.0	7.9	6.7	7.6	1.2	3.4	1.6	4.8	3.4	9.2	3.1	8.0		5.9	7.1
3.5	0.6	3.0	1.9	2.6	2.9	2.3	1.9	1.2	0.5	6.3	3.4	3.1	0.4	2.8		1.9	3.0
35.6	21.4	22.7	9.7	19.5	28.2	29.2	19.3	25.8	18.7	24.6	23.3	35.5	8.9	18.0		14.3	29.0
6.9	9.7	9.4	9.7	11.1	8.3	8.7	13.0	11.1	11.4	9.8	10.8	11.2	9.3	9.1		9.3	10.8
5.1	13.0	8.6	7.8	8.4	7.1	6.2	6.8	6.5	12.4	6.7	7.5	5.4	4.7	4.2		4.3	5.9
16.6	11.7	12.9	14.6	10.0	14.5	14.0	19.3	13.8	17.6	15.0	15.7	11.9	14.3	15.8		15.1	13.4
12.3	6.5	12.9	12.6	12.1	11.8	13.1	16.8	14.5	16.6	13.1	14.5	13.9	15.5	11.1		13.1	14.0
6.7	1.9	7.7	13.6	8.4	7.1	6.5	6.2	7.7	4.7	8.1	7.2	8.8	6.2	6.9		6.6	8.0
14.5	35.7	17.6	20.4	18.4	18.1	16.8	9.3	19.4	15.0	14.4	15.2	17.9	15.1	16.9		16.2	16.9
4.7	1.9	4.3	1.9	2.6	3.9	3.7	5.6	4.9	2.6	2.8	3.7	6.3	5.4	8.3		7.1	5.7
8.6	2.6	6.0	3.9	8.9	7.3	7.4	3.7	6.8	6.2	8.7	7.1	9.4	12.0	9.7		10.6	9.0
5.6	2.6	4.7	2.9	7.4	5.2	5.5	5.0	6.5	3.1	4.3	4.8	5.9	4.7	5.0		5.1	5.4
14.6	4.5	12.0	7.8	10.0	12.1	13.0	14.3	10.5	13.5	11.1	11.7	9.6	10.5	10.8		10.6	10.3
8.8	1.3	5.2	1.9	4.7	6.5	5.1	6.2	4.9	2.6	4.8	4.7	6.5	2.3	4.2		3.4	5.5
2.6	17.5	8.2	12.6	8.9	6.5	8.5	6.8	4.6	5.7	10.9	7.9	4.5	9.3	7.2		8.0	5.9
0.0	0.6	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0

‖ Statistics are not presented for this group because too few records contained the specific data.

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-4 Statistical Profile of Doctorate Recipients, by Race/Ethnicity and Citizenship, 1995

		Total				American Indian	Asian				Black			
		Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.
Total Number		**41,610**	**27,603**	**4,307**	**8,806**	**148**	**9,696**	**1,138**	**3,162**	**5,375**	**1,798**	**1,287**	**168**	**335**
Male	%	60.7	54.0	67.5	77.8	54.7	73.3	58.9	69.5	78.6	48.5	37.5	75.0	77.6
Female		39.3	46.0	32.5	22.2	45.3	26.7	41.1	30.5	21.4	51.5	62.5	25.0	22.4
Doctoral Field														
Physical Sciences	%	16.4	13.2	27.1	21.0	7.4	23.6	19.6	30.9	20.3	5.7	4.0	6.0	11.9
Engineering		14.4	8.6	22.1	28.7	6.8	29.2	22.4	24.5	33.5	5.7	4.2	10.1	9.3
Life Sciences		19.0	18.1	24.6	19.6	18.2	22.1	23.4	26.7	19.1	16.1	12.0	18.5	30.4
Social Sciences		15.9	18.2	9.2	11.6	19.6	10.1	14.8	7.1	10.8	18.2	18.8	21.4	14.6
Humanities		12.2	14.4	7.8	7.4	12.8	4.7	8.0	4.0	4.4	8.8	8.2	10.7	10.4
Education		15.7	20.6	5.0	5.7	27.0	4.7	7.0	3.0	5.2	37.0	44.0	26.2	15.2
Professional/Other		6.4	6.8	4.1	6.1	8.1	5.6	4.8	3.7	6.7	8.4	8.7	7.1	8.1
Median Age at Doct.†	Yrs	33.9	35.0	33.2	32.4	39.4	32.5	31.2	32.9	32.3	39.5	40.4	38.8	37.1
Median Time Lapse from Bacc. to Doct.†														
Total Time	Yrs	10.9	11.3	11.0	9.7	13.1	10.3	9.0	11.2	9.9	14.4	16.2	12.4	12.1
Registered Time		7.2	7.4	7.5	6.8	7.0	7.1	7.0	7.6	6.9	7.6	7.8	7.6	6.7
Graduate School Support‡														
GI Bill	%	0.7	1.1	0.0	0.0	1.4	0.0	0.3	0.0	0.0	1.0	1.4	0.0	0.0
Other Federal§		9.6	12.8	3.3	3.3	19.6	4.1	19.2	2.5	2.0	12.3	12.3	7.7	14.9
State Government		0.9	1.2	0.6	0.4	1.4	0.4	1.1	0.5	0.3	1.8	1.9	1.8	1.5
Foreign Government		3.7	0.5	3.0	14.3	0.7	5.3	1.0	1.5	8.4	3.3	0.1	1.8	16.4
National Fellow (nonfed.)		4.8	5.6	2.9	3.6	6.1	2.8	6.9	2.5	2.0	8.9	8.2	4.2	14.0
Univ. Teaching Asst.	%	46.8	46.9	54.3	47.3	42.6	49.3	48.3	54.5	46.5	29.5	26.4	44.6	34.6
Univ. Research Asst.§		47.8	42.0	68.7	60.5	41.2	67.7	57.0	75.6	65.5	29.8	25.8	34.5	43.6
Other University		23.1	26.0	19.6	18.0	20.9	17.7	23.5	18.4	16.1	28.3	31.6	25.0	17.6
Business/Employer		5.4	7.1	2.3	2.2	4.7	2.5	6.7	2.2	1.9	4.6	6.1	0.0	1.2
Self/Family Sources		65.2	75.5	43.3	50.1	76.4	48.3	63.1	35.8	52.6	66.0	73.9	63.7	38.2
GSL (Stafford) Loan	%	19.6	28.6	5.5	0.2	33.1	3.4	21.4	2.5	0.1	27.1	33.1	35.7	0.6
Other Loans		6.9	9.5	2.3	1.5	15.5	1.6	7.5	1.1	0.7	9.3	11.7	6.5	2.1
Other Sources		3.1	3.3	1.5	3.4	4.1	1.7	2.4	0.9	2.1	4.2	2.9	3.6	9.6
Unknown Sources		6.7	4.6	3.4	5.5	4.7	3.9	3.8	2.7	4.5	7.8	7.9	5.4	6.6
Postdoctoral Plans														
Postdoctoral Study	%	26.7	23.0	40.1	34.2	22.3	38.3	35.9	44.4	35.4	19.6	16.2	29.2	28.1
Planned Employment	%	65.1	71.2	53.4	58.3	71.6	55.2	59.2	49.5	57.9	71.2	74.0	64.3	65.4
Educ. Institution ‖		38.4	44.4	24.7	30.1	45.9	24.7	26.7	19.2	27.6	51.4	55.3	43.5	41.8
Industry/Business		14.1	12.5	21.1	16.9	10.1	21.0	20.7	23.6	19.7	6.2	5.5	9.5	7.5
Government		4.7	5.3	1.4	4.9	4.7	3.5	4.4	1.2	4.7	5.1	5.2	3.0	5.7
Nonprofit		3.4	4.4	1.9	1.5	2.7	1.5	3.0	1.3	1.3	2.9	3.0	3.6	2.4
Other & Unknown		4.6	4.6	4.4	5.0	8.1	4.5	4.5	4.2	4.7	5.5	5.0	4.8	8.1
Postdoc. Plans Unknown	%	8.2	5.8	6.4	7.4	6.1	6.4	4.8	6.1	6.7	9.2	9.8	6.5	6.6
Definite Postdoc. Study	%	17.7	16.8	22.9	19.7	17.6	22.1	26.2	24.9	19.6	10.6	10.6	8.9	11.6
Seeking Postdoc. Study		9.0	6.2	17.3	14.5	4.7	16.2	9.8	19.5	15.8	9.0	5.6	20.2	16.4
Definite Employment		41.6	48.2	24.9	33.3	45.3	28.2	36.2	22.2	30.0	46.5	51.8	28.0	36.4
Seeking Employment		23.5	22.9	28.5	25.0	26.4	27.1	23.0	27.3	27.9	24.7	22.2	36.3	29.0
Employment Location After Doctorate#		**17,329**	**13,311**	**1,074**	**2,932**	**67**	**2,731**	**412**	**702**	**1,613**	**836**	**667**	**47**	**122**
U.S.	%	87.6	97.6	89.0	42.0	97.0	64.2	93.2	91.5	45.0	87.9	99.3	87.2	26.2
Foreign		12.3	2.4	10.7	57.5	3.0	35.5	6.8	8.3	54.6	11.8	0.6	12.8	73.0
Unknown		0.1	0.1	0.3	0.5	0.0	0.3	0.0	0.3	0.4	0.2	0.1	0.0	0.8

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A for a discussion of past changes in the survey question on race/ethnicity.

*Includes individuals who did not report their citizenship at time of doctorate.
†The method of median computation has been revised. See page 102 for more information.
‡In this table a recipient counts once in each source category from which he or she received support. Since students indicate multiple sources of support, the vertical percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the body of the report.)
§Because federal support obtained through the university cannot always be determined, no distinction is made between federal and university research assistants in this table. Both types of support are grouped under "University Research Assistant." Federal loans are counted in the categories for loans.
‖ Includes 2-year, 4-year, and foreign colleges and universities, medical schools, and elementary/secondary schools.
#Includes only recipients with definite employment plans.

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APPENDIX TABLE A-4 (Continued)

White				Puerto Rican	Mexican American				Other Hispanic				Unknown Race		
Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total*	U.S.	Non-U.S. Perm.	Non-U.S. Temp.	Total*	U.S.	Non-U.S.
26,993	**23,811**	**797**	**2,356**	**269**	**316**	**274**	**15**	**25**	**945**	**373**	**124**	**446**	**1,445**	**303**	**310**
56.6	54.6	60.5	75.3	44.6	57.3	53.6	80.0	84.0	64.0	51.7	51.6	77.8	72.0	70.3	80.6
43.4	45.4	39.5	24.7	55.4	42.7	46.4	20.0	16.0	36.0	48.3	48.4	22.2	28.0	29.7	19.4
14.7	13.5	18.9	25.2	8.9	9.8	8.8	13.3	20.0	12.9	10.2	14.5	14.6	17.6	19 1	21.3
9.8	8.2	16.8	23.2	4.8	7.3	5.1	33.3	16.0	12.0	9.1	8.9	15.2	19.3	16.5	27.7
18.1	18.3	17.9	16.4	16.7	17.1	13.5	26.7	52.0	24.7	16.9	24.2	31.4	16.7	17.2	21.3
17.7	18.2	14.8	12.9	24.2	23.4	25.2	6.7	12.0	16.0	21.4	9.7	13.0	15.4	13.9	9.7
14.9	15.0	19.7	12.0	11.5	11.7	12.8	6.7	0.0	18.2	17.2	24.2	17.5	11.9	18.2	6.8
18.2	19.9	6.3	5.4	25.7	29.1	32.8	13.3	0.0	12.3	19.6	16.9	4.9	13.0	10.9	7.4
6.7	6.9	5.5	4.9	8.2	1.6	1.8	0.0	0.0	4.0	5.6	1 6	3.4	6.0	4.3	5.8
34.3	34.9	33.2	31.7	36.9	36.8	36.9	34.0	35.8	35.2	34.3	35.6	35.5	33.0	34.6	32.3
11.0	11.3	9.7	8.4	13.3	11.9	12.0	11.7	10.5	10.8	10.4	10.3	11.0	10.5	10.3	10.0
7.3	7.4	7.0	6.4	8.0	7.2	7.3	6.0	7.1	6.7	7.1	6.8	6.3	7.0	7.0	6.8
1.0	1.1	0.0	0.0	1.1	0.9	1.1	0.0	0.0	0.3	0.8	0.0	0.0	0.0	0.0	0.0
11.4	12.3	5.4	3.7	17.8	18.0	17.9	20.0	20.0	12.5	20.1	5.6	8.1	2.6	9.6	1.9
1.1	1.2	0.8	0.4	3.3	1.6	1.8	0.0	0.0	1.2	1.1	1.6	1.1	0.1	0.3	0.3
2.7	0.5	7.4	23.2	0.7	6.6	0.0	46.7	56.0	16.6	1.6	6.5	32.1	3.7	0.7	16.5
5.2	5.3	4.1	4.8	8.6	11.1	12.4	0.0	4.0	8.3	9.4	5.6	8.1	1.8	5.3	2.6
49.0	48.3	57.2	54.0	33.5	43.7	43.1	53.3	48.0	44.7	44.5	47.6	43.9	14.6	38.6	29.4
44.2	42.6	52.1	58.1	27.9	37.7	37.2	40.0	44.0	43.8	38.6	53.2	45.5	14.9	35.6	33.9
25.3	25.7	23.0	22.7	30.9	30.7	32.5	13.3	20.0	24.1	30.8	21.8	19.3	7.2	18.8	14.2
6.8	7.3	3.6	3.1	4.5	2.8	3.3	0.0	0.0	3.8	5.9	0.0	3.1	1.1	3.3	1.3
74.2	76.8	65.4	51.0	62.8	74.1	78.5	60.0	36.0	56.8	69.7	68.5	42.8	13.2	38.9	21.6
25.5	28.5	10.7	0.2	44.6	29.1	33.2	6.7	0.0	14.3	32.2	10.5	0.4	4.4	20.8	0.0
8.6	9.3	5.9	3.1	16.7	15.2	17.5	0.0	0.0	6.2	11.5	5.6	2.0	1.7	7.6	0.6
3.5	3.4	3.0	5.0	3.7	5.1	3.6	6.7	20.0	3.6	2.1	4.0	4.7	1.3	2.0	4.2
4.1	4.0	4.8	3.3	7.1	2.5	2.6	0.0	0.0	6.5	6.7	4.8	6.5	73.5	37.0	40.3
24.1	22.9	27.6	35.5	20.8	20.3	19.3	40.0	20.0	25.5	24.7	30.6	24.9	9.0	16.2	25.8
70.6	71.9	65.4	59.6	69.5	75.0	75.9	60.0	76.0	67.6	68.4	64.5	67.9	16.6	44.9	31.6
43.6	44.8	39.8	33.3	41.3	51.9	54.0	26.7	44.0	44.3	44.5	43.5	44.4	7.9	23.4	13.2
12.9	12.6	15.4	14.6	9.3	7.6	7.7	13.3	4.0	10.3	12.9	12.1	7.6	4.4	9.6	10.0
5.1	5.3	1.6	4.9	9.3	4.4	3.3	0.0	20.0	6.1	5.1	3.2	7.8	1.7	4.3	3.5
4.3	4.6	3.8	1.8	4.5	4.1	4.7	0.0	0.0	1.8	1.9	2.4	1.6	0.4	1.3	0.6
4.6	4.5	4.8	5.0	5.2	7.0	6.2	20.0	8.0	5.1	4.0	3.2	6.5	2.3	6.3	4.2
5.3	5.2	7.0	5.0	9.7	4.7	4.7	0.0	4.0	6.9	7.0	4.8	7.2	74.4	38.9	42.6
17.4	16.8	17.6	22.9	14.1	15.8	14.2	40.0	20.0	16.1	16.6	21.0	14.3	5.8	13.2	14.2
6.8	6.1	10.0	12.6	6.7	4.4	5.1	0.0	0.0	9.4	8.0	9.7	10.5	3.2	3.0	11.6
47.6	49.0	34.8	38.4	44.2	49.1	48.9	26.7	64.0	45.4	45.0	29.8	50.0	10.3	27.1	19.7
23.0	22.9	30.6	21.2	25.3	25.9	27.0	33.3	12.0	22.2	23.3	34.7	17.9	6.3	17.8	11.9
12,843	**11,662**	**277**	**904**	**119**	**155**	**134**	**4**	**16**	**429**	**168**	**37**	**223**	**149**	**82**	**61**
93.5	97.6	84.8	43.8	100.0	88.4	98.5	50.0	18.8	58.3	95.8	78.4	26.9	71.8	98.8	34.4
6.4	2.4	14.8	55.5	0.0	11.0	0.7	50.0	81.2	41.7	4.2	21.6	73.1	26.8	1.2	62.3
0.1	0.0	0.4	0.7	0.0	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0	3.3

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-5 Sources of Graduate School Support for Doctorate Recipients, by Broad Field and Gender, 1995

		Total		Physical Sciences		Engineering		Life Sciences		Social Sciences		Humanities		Education		Prof/Other Fields	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
Federal Fellow/ Trainee	N	1,229	1,171	168	85	123	70	665	677	187	243	68	53	12	25	6	18
	V*	5.2	7.7	3.4	6.0	2.5	10.6	15.5	21.7	6.2	7.8	2.8	2.3	0.5	0.7	0.4	2.0
	H*	100.0	100.0	13.7	7.3	10.0	6.0	54.1	57.8	15.2	20.8	5.5	4.5	1.0	2.1	0.5	1.5
GI Bill	N	226	73	25	2	31	2	14	17	43	29	36	5	46	16	31	2
	V	1.0	0.5	0.5	0.1	0.6	0.3	0.3	0.5	1.4	0.9	1.5	0.2	2.0	0.4	2.0	0.2
	H	100.0	100.0	11.1	2.7	13.7	2.7	6.2	23.3	19.0	39.7	15.9	6.8	20.4	21.9	13.7	2.7
Other Federal Support†	N	1,055	675	265	105	249	46	172	164	134	140	139	105	57	97	39	18
	V	4.5	4.4	5.3	7.4	5.0	7.0	4.0	5.2	4.5	4.5	5.7	4.5	2.5	2.6	2.5	2.0
	H	100.0	100.0	25.1	15.6	23.6	6.8	16.3	24.3	12.7	20.7	13.2	15.6	5.4	14.4	3.7	2.7
State Government	N	219	174	48	13	27	10	57	42	29	33	18	18	25	46	15	12
	V	0.9	1.1	1.0	0.9	0.5	1.5	1.3	1.3	1.0	1.1	0.7	0.8	1.1	1.2	1.0	1.3
	H	100.0	100.0	21.9	7.5	12.3	5.7	26.0	24.1	13.2	19.0	8.2	10.3	11.4	26.4	6.8	6.9
Foreign Government	N	1,163	358	178	30	346	26	255	98	148	58	92	86	66	40	78	20
	V	4.9	2.3	3.6	2.1	7.0	3.9	5.9	3.1	4.9	1.9	3.8	3.7	2.8	1.1	5.0	2.2
	H	100.0	100.0	15.3	8.4	29.8	7.3	21.9	27.4	12.7	16.2	7.9	24.0	5.7	11.2	6.7	5.6
National Fellow (nonfed.)	N	1,039	956	160	78	135	57	205	150	183	229	265	313	29	85	62	44
	V	4.4	6.3	3.2	5.5	2.7	8.6	4.8	4.8	6.1	7.3	10.8	13.5	1.2	2.3	4.0	4.8
	H	100.0	100.0	15.4	8.2	13.0	6.0	19.7	15.7	17.6	24.0	25.5	32.7	2.8	8.9	6.0	4.6
University Teaching Assistant	N	12,053	7,404	3,441	1,029	2,041	284	1,576	1,162	1,817	1,713	1,831	1,784	543	946	804	486
	V	51.2	48.4	68.8	72.5	41.3	43.0	36.7	37.2	60.7	55.0	74.9	76.9	23.4	25.3	52.0	53.3
	H	100.0	100.0	28.5	13.9	16.9	3.8	13.1	15.7	15.1	23.1	15.2	24.1	4.5	12.8	6.7	6.6
University Research Assistant†	N	13,376	6,533	3,833	1,082	3,877	541	2,867	1,947	1,344	1,461	441	427	389	736	625	339
	V	56.8	42.7	76.6	76.3	78.4	82.0	66.7	62.3	44.9	46.9	18.0	18.4	16.8	19.7	40.4	37.2
	H	100.0	100.0	28.7	16.6	29.0	8.3	21.4	29.8	10.0	22.4	3.3	6.5	2.9	11.3	4.7	5.2
University Fellow	N	3,721	2,586	702	206	519	93	641	503	691	636	767	728	159	258	242	162
	V	15.8	16.9	14.0	14.5	10.5	14.1	14.9	16.1	23.1	20.4	31.4	31.4	6.9	6.9	15.6	17.8
	H	100.0	100.0	18.9	8.0	13.9	3.6	17.2	19.5	18.6	24.6	20.6	28.2	4.3	10.0	6.5	6.3
Other University	N	1,829	2,015	175	83	198	47	325	294	367	519	357	432	248	498	159	142
	V	7.8	13.2	3.5	5.8	4.0	7.1	7.6	9.4	12.3	16.7	14.6	18.6	10.7	13.3	10.3	15.6
	H	100.0	100.0	9.6	4.1	10.8	2.3	17.8	14.6	20.1	25.8	19.5	21.4	13.6	24.7	8.7	7.0
Business/ Employer	N	1,398	844	227	60	382	50	132	126	145	128	119	106	256	315	137	59
	V	5.9	5.5	4.5	4.2	7.7	7.6	3.1	4.0	4.8	4.1	4.9	4.6	11.0	8.4	8.9	6.5
	H	100.0	100.0	16.2	7.1	27.3	5.9	9.4	14.9	10.4	15.2	8.5	12.6	18.3	37.3	9.8	7.0
Own Earnings	N	11,121	9,186	1,436	382	1,677	202	1,500	1,301	1,811	2,026	1,724	1,549	1,983	3,112	990	614
	V	47.2	60.1	28.7	26.9	33.9	30.6	34.9	41.6	60.5	65.0	70.5	66.7	85.4	83.4	64.0	67.4
	H	100.0	100.0	12.9	4.2	15.1	2.2	13.5	14.2	16.3	22.1	15.5	16.9	17.8	33.9	8.9	6.7
Spouse's Earnings	N	5,314	4,968	822	315	680	140	968	850	821	1,066	760	832	763	1,452	500	313
	V	22.6	32.5	16.4	22.2	13.7	21.2	22.5	27.2	27.4	34.2	31.1	35.8	32.9	38.9	32.3	34.4
	H	100.0	100.0	15.5	6.3	12.8	2.8	18.2	17.1	15.4	21.5	14.3	16.7	14.4	29.2	9.4	6.3
Family Support	N	5,684	3,516	929	261	1,362	114	932	608	927	975	754	736	371	607	409	215
	V	24.1	23.0	18.6	18.4	27.5	17.3	21.7	19.4	31.0	31.3	30.8	31.7	16.0	16.3	26.4	23.6
	H	100.0	100.0	16.3	7.4	24.0	3.2	16.4	17.3	16.3	27.7	13.3	20.9	6.5	17.3	7.2	6.1
Guaranteed Student Loan (Stafford)	N	4,299	3,859	517	173	397	54	721	546	1,014	1,275	816	802	502	755	332	254
	V	18.3	25.2	10.3	12.2	8.0	8.2	16.8	17.5	33.9	40.9	33.4	34.6	21.6	20.2	21.5	27.9
	H	100.0	100.0	12.0	4.5	9.2	1.4	16.8	14.1	23.6	33.0	19.0	20.8	11.7	19.6	7.7	6.6
Perkins Loan (NDSL)	N	975	912	83	39	54	7	116	84	283	359	243	216	115	153	81	54
	V	4.1	6.0	1.7	2.7	1.1	1.1	2.7	2.7	9.5	11.5	9.9	9.3	5.0	4.1	5.2	5.9
	H	100.0	100.0	8.5	4.3	5.5	0.8	11.9	9.2	29.0	39.4	24.9	23.7	11.8	16.8	8.3	5.9
Other Loans	N	571	660	70	24	69	17	77	80	115	212	88	114	88	161	64	52
	V	2.4	4.3	1.4	1.7	1.4	2.6	1.8	2.6	3.8	6.8	3.6	4.9	3.8	4.3	4.1	5.7
	H	100.0	100.0	12.3	3.6	12.1	2.6	13.5	12.1	20.1	32.1	15.4	17.3	15.4	24.4	11.2	7.9
Other Sources	N	652	620	101	47	90	17	145	148	99	104	83	88	61	156	73	60
	V	2.8	4.1	2.0	3.3	1.8	2.6	3.4	4.7	3.3	3.3	3.4	3.8	2.6	4.2	4.7	6.6
	H	100.0	100.0	15.5	7.6	13.8	2.7	22.2	23.9	15.2	16.8	12.7	14.2	9.4	25.2	11.2	9.7
Unduplicated Total‡		23,553	15,287	5,002	1,419	4,947	660	4,298	3,127	2,993	3,117	2,445	2,321	2,321	3,732	1,547	911

NOTE: In this table a recipient counts once in each source category from which he or she received support. Since students indicate multiple sources of support, the vertical percentages sum to more than 100 percent. (Data on the "primary" source of support for doctorate recipients are presented in the body of the report.) Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

*V denotes vertical percentage; H denotes horizontal percentage.
†Because federal support obtained through the university cannot always be determined, no distinction is made between federal and university research assistants in this table. Both types of support are grouped under "University Research Assistant." Federal loans are counted in the categories for loans.
‡The 2,770 Ph.D.s who did not report sources of support are omitted from this total. Percentages are based only on known responses.

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-5 State of Doctoral Institution of Doctorate Recipients, by Broad Field and Gender, 1995

	Total		Physical Sciences		Engineering		Life Sciences		Social Sciences		Humanities		Education		Prof./Other Fields	
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
U.S. Total*	25,277	16,333	5,307	1,499	5,313	694	4,585	3,328	3,261	3,362	2,616	2,445	2,514	4,032	1,681	973
Alabama	241	199	27	16	49	6	75	61	22	25	4	9	31	71	33	11
Alaska	11	8	5	2	2	0	3	4	1	2	0	0	0	0	0	0
Arizona	485	297	124	25	101	6	67	41	38	57	42	35	68	111	45	22
Arkansas	96	60	13	3	13	1	27	11	4	2	4	0	25	39	10	4
California	3,014	2,001	718	190	682	109	467	388	509	625	331	309	177	304	130	76
Colorado	462	271	96	39	129	15	88	64	50	57	40	26	49	55	10	15
Connecticut	369	285	80	40	39	5	86	57	52	47	80	95	22	35	10	6
Delaware	94	61	24	8	26	5	10	3	11	11	7	16	14	18	2	0
Dist. of Columbia	257	213	35	14	28	2	32	33	57	68	41	41	31	27	33	28
Florida	791	661	128	48	136	6	100	80	85	106	61	63	189	302	92	56
Georgia	489	363	86	30	107	13	93	61	51	70	47	56	56	108	49	25
Hawaii	98	57	17	9	11	0	25	20	26	13	11	11	6	4	2	0
Idaho	60	20	12	0	6	1	27	5	6	0	0	0	9	13	0	1
Illinois	1,392	951	306	86	257	42	213	167	201	195	175	157	140	241	100	63
Indiana	704	402	158	46	160	17	109	62	78	76	104	81	62	96	33	24
Iowa	452	227	84	25	106	13	109	43	46	34	36	29	51	74	20	9
Kansas	273	174	43	14	45	6	72	38	33	20	24	22	50	62	6	12
Kentucky	202	115	24	8	21	2	51	31	37	27	30	13	17	20	22	14
Louisiana	338	166	61	20	48	2	83	50	45	23	35	20	22	41	44	10
Maine	26	14	5	3	5	0	11	1	1	2	1	3	3	5	0	0
Maryland	506	379	107	40	124	23	121	126	65	67	43	50	31	56	15	17
Massachusetts	1,356	840	334	77	313	54	197	178	182	145	130	137	101	200	99	49
Michigan	945	577	185	51	240	31	160	139	114	125	103	92	86	113	57	26
Minnesota	529	332	73	20	104	9	126	83	53	58	47	44	62	82	64	36
Mississippi	207	142	18	5	25	2	58	16	28	27	15	9	34	72	29	11
Missouri	392	242	55	21	98	6	68	55	57	53	33	24	39	66	42	17
Montana	42	25	15	3	4	1	11	5	4	4	0	0	8	12	0	0
Nebraska	155	100	27	6	12	2	48	19	18	14	15	21	23	32	12	6
Nevada	49	31	13	4	11	1	9	5	8	3	3	6	5	12	0	0
New Hampshire	57	39	23	9	9	2	18	15	4	7	1	3	1	3	1	0
New Jersey	559	318	163	43	123	15	61	75	84	70	88	68	10	34	30	13
New Mexico	180	102	40	8	46	5	31	13	16	16	13	17	28	42	6	1
New York	2,242	1,612	529	143	370	56	376	285	366	379	326	334	158	311	117	104
North Carolina	608	393	115	41	116	20	174	117	84	67	64	59	38	74	17	15
North Dakota	43	40	11	2	4	0	16	7	5	9	1	1	6	21	0	0
Ohio	1,080	711	207	56	263	32	180	125	109	135	111	93	136	208	74	62
Oklahoma	234	150	36	16	63	6	40	18	28	24	15	13	40	62	12	11
Oregon	277	174	71	21	31	4	87	42	28	38	21	19	26	43	13	7
Pennsylvania	1,319	906	240	68	356	57	168	184	165	162	118	154	160	219	112	62
Puerto Rico	15	35	5	1	0	0	0	0	7	20	1	1	2	13	0	0
Rhode Island	146	100	48	12	28	6	27	25	19	21	24	35	0	0	0	1
South Carolina	216	154	51	13	35	5	53	33	12	15	17	22	27	53	21	13
South Dakota	26	32	2	0	1	0	6	1	3	4	0	0	14	27	0	0
Tennessee	383	254	49	16	60	10	68	43	56	48	49	20	63	104	38	13
Texas	1,769	948	378	76	425	41	329	227	151	169	150	118	168	258	168	59
Utah	267	100	60	15	80	3	36	17	43	33	14	3	28	21	6	8
Vermont	31	23	5	2	3	0	12	8	6	8	0	1	5	4	0	0
Virginia	635	370	131	40	165	18	101	81	66	74	38	25	82	109	52	23
Washington	436	251	98	26	90	12	100	77	51	39	42	37	35	42	20	18
West Virginia	89	69	12	4	24	3	17	5	6	8	2	0	28	49	0	0
Wisconsin	586	320	148	30	110	17	126	80	68	56	59	53	40	59	35	25
Wyoming	44	19	12	4	9	2	13	4	2	4	0	0	8	5	0	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

*Includes the 50 states, the District of Columbia, and Puerto Rico.

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE A-7 Institutions Granting Doctorates, by Major Field, 1995

	1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
TOTAL ALL INSTITUTIONS*	41,610	1,652	2,161	805	2,188	6,007	5,370	1,331	1,212	3,267	3,356	889	1,080	3,092	6,546	2,654
ALABAMA	440	15	14	1	13	55	72	35	29	27	20	1	4	8	102	44
Alabama A & M University	6	3	0	0	0	1	0	0	2	0	0	0	0	0	0	0
Auburn University	137	5	4	0	7	22	14	4	27	12	10	1	2	0	24	5
United States Sports Academy	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Univ of Alabama-Birmingham	101	1	0	1	1	5	46	28	0	7	0	0	0	0	12	0
Univ of Alabama-Huntsville	24	6	0	0	1	17	0	0	0	0	0	0	0	0	0	0
Univ of Alabama-University	162	0	10	0	4	10	4	3	0	8	10	0	2	8	64	39
Univ of South Alabama	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0
ALASKA	19	2	0	4	1	2	5	0	2	1	2	0	0	0	0	0
Univ of Alaska	19	2	0	4	1	2	5	0	2	1	2	0	0	0	0	0
ARIZONA	782	39	29	34	47	107	76	16	16	39	56	12	12	53	179	67
Arizona State Univ	302	9	8	9	15	51	24	3	0	26	20	4	3	19	68	43
Northern Arizona Univ	86	0	0	0	0	0	4	0	0	0	6	2	0	4	70	0
Univ of Arizona	394	30	21	25	32	56	48	13	16	13	30	6	9	30	41	24
ARKANSAS	156	6	8	0	2	14	19	5	14	5	1	4	0	0	64	14
U of Arkansas-Fayetteville	132	6	8	0	2	10	5	5	14	5	1	4	0	0	58	14
U of Arkansas-Little Rock	10	0	0	0	0	4	0	0	0	0	0	0	0	0	6	0
U of Arkansas-Med Sci Campus	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0
CALIFORNIA	5,015	235	261	109	303	791	668	123	64	691	443	126	119	395	481	206
Biola Univ	16	0	0	0	0	0	0	0	0	11	0	0	0	0	5	0
Cal Inst of Integral Studies	23	0	0	0	0	0	0	0	0	20	0	0	0	3	0	0
Cal Inst of Technology	166	35	34	11	18	47	14	0	0	0	7	0	0	0	0	0
Cal Sch Prof Psych-Alameda	64	0	0	0	0	0	0	0	0	63	0	0	0	0	0	1
Cal Sch Prof Psych-Alhambra	71	0	0	0	0	0	0	0	0	71	0	0	0	0	0	0
Cal Sch Prof Psych-Fresno	45	0	0	0	0	0	0	0	0	45	0	0	0	0	0	0
Cal Sch Prof Psych-San Diego	80	0	0	0	0	0	0	0	0	80	0	0	0	0	0	0
Claremont Graduate School	78	0	0	0	11	1	1	1	0	10	10	1	8	14	9	12
Fielding Institute	45	0	0	0	0	0	0	0	0	35	5	0	0	0	0	5
Fuller Theological Seminary	53	0	0	0	0	0	0	0	0	38	3	0	0	6	0	6
Golden Gate Baptist Theol Sem	2	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Graduate Theological Union	25	0	0	0	0	0	0	0	0	0	0	0	0	11	0	14
Hebrew Union College	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
La Sierra Univ	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Loma Linda Univ	18	0	0	0	0	0	11	7	0	0	0	0	0	0	0	0
Naval Postgraduate School	7	0	0	1	4	2	0	0	0	0	0	0	0	0	0	0
Pacific Grad Sch of Psych	40	0	0	0	0	0	0	0	0	40	0	0	0	0	0	0
Pepperdine Univ	22	0	0	0	0	0	0	0	0	0	0	0	0	1	21	0
Rand Grad Sch Policy Studies	12	0	0	0	0	0	0	0	0	0	12	0	0	0	0	0
Research Inst of Scripps Clinic	6	0	1	0	0	0	5	0	0	0	0	0	0	0	0	0
San Diego State Univ	21	0	2	0	0	0	4	0	0	10	0	0	0	0	5	0
Saybrook Institute	17	0	0	0	0	0	0	0	0	15	1	0	0	0	0	1
School of Theology at Claremont	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Stanford Univ	583	37	33	13	54	207	46	0	3	12	53	12	11	55	28	19
U.S. International Univ	86	0	0	0	0	0	0	0	0	59	0	0	0	0	8	19
Univ of California-Berkeley	827	34	42	17	74	178	104	28	24	25	99	31	21	71	47	32
Univ of California-Davis	337	13	30	10	11	47	134	5	28	8	21	6	6	17	1	0
Univ of California-Irvine	188	14	16	0	15	29	44	2	0	5	20	8	9	17	0	9
Univ of Calif-Los Angeles	663	34	33	19	42	85	87	42	1	40	78	34	18	78	54	18
Univ of Calif-Riverside	132	4	4	0	3	0	27	0	8	12	29	8	14	9	14	0
Univ of Calif-San Diego	257	24	14	15	27	35	70	0	0	12	27	6	4	17	0	6
Univ of Calif-San Francisco	86	0	12	0	0	6	42	15	0	2	9	0	0	0	0	0
Univ of Calif-Santa Barbara	201	18	12	7	11	44	17	1	0	14	22	6	3	20	21	5
Univ of Calif-Santa Cruz	100	10	10	11	8	7	11	0	0	9	12	10	3	9	0	0
Univ of La Verne	56	0	0	0	0	0	0	0	0	0	0	0	0	0	49	7
Univ of the Pacific	15	0	2	0	0	0	0	0	0	0	0	0	0	0	13	0
Univ of San Diego	23	0	0	0	0	0	0	10	0	0	0	0	0	0	13	0
Univ of San Francisco	73	0	0	0	0	0	0	0	0	0	0	0	0	0	73	0
Univ of Santa Clara	3	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0
Univ of Southern California	541	12	16	5	25	100	51	12	0	33	35	4	22	65	114	47
Wright Institute, The	22	0	0	0	0	0	0	0	0	22	0	0	0	0	0	0
COLORADO	733	22	36	37	40	144	90	20	42	54	53	6	15	45	104	25
Colorado School of Mines	43	3	1	8	8	20	0	0	0	0	3	0	0	0	0	0
Colorado State Univ	208	2	18	11	9	33	30	5	42	13	15	0	0	0	22	8
Univ of Colorado	344	17	12	17	20	90	55	11	0	17	27	6	7	30	23	12
Univ of Denver	82	0	5	1	1	1	5	1	0	18	8	0	8	5	24	5
Univ of Northern Colorado	56	0	0	0	2	0	0	3	0	6	0	0	0	10	35	0
CONNECTICUT	654	27	50	4	39	44	113	20	10	32	67	34	21	120	57	16
Univ of Connecticut	264	3	19	1	14	25	48	8	5	22	17	7	6	21	57	11
Univ of Hartford	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Wesleyan Univ	22	1	3	0	5	0	11	0	0	0	1	0	0	1	0	0
Yale Univ	365	23	28	3	20	19	54	12	5	10	49	27	15	95	0	5
DELAWARE	155	8	6	10	8	31	10	0	3	11	11	5	12	6	32	2
Univ of Delaware	139	8	6	10	8	31	10	0	3	11	11	5	12	6	16	2
Wilmington College	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.
*Includes the 50 states, the District of Columbia, and Puerto Rico.

APPENDIX TABLE A-7 (Continued)

	1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
DISTRICT OF COLUMBIA	470	17	19	1	12	30	55	10	0	44	81	11	9	62	58	61
American Univ	64	5	3	0	1	0	1	0	0	12	28	1	0	0	9	4
Catholic Univ of America	99	9	1	0	0	5	1	6	0	7	10	4	4	29	6	17
Gallaudet Univ	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
George Washington Univ	156	2	2	1	10	24	24	2	0	8	20	3	5	7	32	16
Georgetown Univ	58	0	5	0	0	0	21	0	0	0	10	1	0	19	0	2
Howard Univ	84	1	8	0	1	1	8	2	0	17	13	2	0	7	2	22
FLORIDA	1,452	32	51	22	71	142	116	41	23	130	61	16	32	76	491	148
Barry Univ	9	0	0	0	0	0	0	0	0	0	0	0	0	0	2	7
Caribbean Ctr Adv Stud-Miami	6	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0
Florida Atlantic Univ	37	0	0	0	3	6	0	0	0	2	0	0	0	0	14	12
Florida Inst of Technology	17	2	0	0	6	6	1	0	0	0	0	0	0	0	2	0
Florida International Univ	44	0	0	1	2	3	1	0	0	7	1	0	0	0	16	13
Florida State Univ	295	13	9	8	14	4	17	7	0	20	21	10	13	42	65	52
Nova Southeastern Univ	334	0	0	0	11	0	0	0	0	19	2	0	0	0	271	31
Univ of Central Florida	66	4	0	0	9	22	0	0	0	3	0	0	0	0	28	0
Univ of Florida	400	12	32	6	16	85	48	30	23	34	29	4	10	12	41	18
Univ of Miami	141	0	6	3	2	6	37	1	0	29	4	2	6	19	24	2
Univ of South Florida	103	1	4	4	8	10	12	3	0	10	4	0	3	3	28	13
GEORGIA	852	21	55	14	26	120	97	24	33	76	45	16	25	62	164	74
Clark Atlanta Univ	26	0	2	0	0	0	3	0	0	4	5	0	0	1	9	2
Emory Univ	152	1	22	0	3	0	25	5	0	11	14	9	11	40	8	3
Georgia Inst of Technology	189	9	13	12	16	118	4	0	0	8	0	0	0	0	0	9
Georgia State Univ	126	4	2	0	1	0	11	6	0	20	7	4	1	0	49	21
Inst of Paper Sci & Tech	5	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0
Medical College of Georgia	11	0	0	0	0	0	9	2	0	0	0	0	0	0	0	0
Mercer U/Southern Sch Pharm	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Univ of Georgia	342	7	16	2	6	0	45	10	30	33	19	3	13	21	98	39
HAWAII	155	3	6	12	5	11	26	5	14	2	37	4	2	16	10	2
Univ of Hawaii at Manoa	155	3	6	12	5	11	26	5	14	2	37	4	2	16	10	2
IDAHO	80	0	1	3	8	7	12	0	20	0	6	0	0	0	22	1
Idaho State Univ	14	0	0	0	5	0	5	0	0	0	2	0	0	0	2	0
Univ of Idaho	66	0	1	3	3	7	7	0	20	0	4	0	0	0	20	1
ILLINOIS	2,343	98	110	20	164	299	249	77	54	158	238	64	52	216	381	163
DePaul Univ	13	0	0	0	0	0	0	0	0	11	0	0	0	2	0	0
Finch U of Hlth Sci-Chicago Med	14	0	0	0	0	0	9	0	0	5	0	0	0	0	0	0
Illinois Inst of Technology	75	1	1	0	27	26	5	0	0	14	0	0	0	0	0	1
Illinois State Univ-Normal	58	0	0	0	2	0	0	0	0	0	2	3	4	2	45	0
Loyola Univ of Chicago	106	0	3	0	0	0	18	4	0	27	3	2	1	8	36	4
Lutheran Sch of Theol-Chicago	7	0	0	0	0	0	0	0	0	0	0	0	0	2	0	5
Northern Illinois Univ	115	0	5	3	7	0	3	0	0	11	11	2	4	1	68	0
Northwestern Univ	374	12	29	2	26	75	52	4	0	18	37	10	3	53	18	35
Roosevelt Univ	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Rush Univ	16	1	0	0	0	0	8	7	0	0	0	0	0	0	0	0
Southern Ill Univ-Carbondale	167	2	4	0	2	6	7	11	1	18	10	1	3	8	65	29
Southern Ill Univ-Edwardsville	9	0	0	0	0	0	0	0	0	0	0	0	0	0	9	0
Univ of Chicago	367	33	22	6	22	1	45	0	0	12	91	27	17	55	10	26
Univ of Ill-Chicago	247	4	12	0	20	34	36	33	0	16	25	6	7	9	29	16
Univ of Ill-Urbana/Champaign	761	45	34	9	58	157	66	18	53	26	59	13	13	76	87	47
INDIANA	1,106	59	86	15	44	177	108	33	30	60	94	28	35	122	158	57
Ball State Univ	44	0	0	0	0	0	0	1	0	10	0	0	3	12	18	0
Indiana State Univ	25	0	0	0	0	0	4	0	0	3	2	0	0	0	16	0
Indiana Univ-Bloomington	407	20	25	9	16	0	38	11	0	19	37	19	17	81	88	27
Indiana Univ Sch of Medicine	5	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0
Purdue Univ	507	26	55	5	25	140	60	16	30	19	36	5	10	17	36	27
Univ of Notre Dame	118	13	6	1	3	37	6	0	0	9	19	4	5	12	0	3
IOWA	679	20	37	8	44	119	96	21	35	27	53	8	17	40	125	29
Drake Univ	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Iowa State Univ	318	13	26	3	17	80	45	0	35	9	32	2	0	0	53	3
Maharishi International Univ	7	1	0	0	0	0	1	0	0	4	0	0	0	0	0	1
Univ of Iowa	339	6	11	5	27	34	50	21	0	14	21	6	17	40	62	25
Univ of Northern Iowa	9	0	0	0	0	5	0	0	0	0	0	0	0	0	4	0
KANSAS	447	12	26	6	13	51	65	13	32	34	19	5	9	32	112	18
Kansas State Univ	165	4	9	0	9	22	16	1	32	9	9	2	0	0	47	5
Univ of Kansas	260	8	17	6	3	14	49	10	0	23	10	3	9	32	63	13
Wichita State Univ	22	0	0	0	1	15	0	2	0	2	0	0	0	0	2	0
KENTUCKY	317	3	19	2	8	23	64	3	15	31	33	7	4	32	37	36
Southern Bapt Theol Seminary	35	0	0	0	0	0	0	0	0	1	0	0	0	14	3	17
Univ of Kentucky	222	3	13	2	6	18	43	3	15	23	28	7	4	14	24	19
Univ of Louisville	60	0	6	0	2	5	21	0	0	7	5	0	0	4	10	0

APPENDIX TABLE A-7 (Continued)

	1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
LOUISIANA	504	8	25	8	40	50	77	32	24	32	36	11	12	32	63	54
Grambling St Univ	13	0	0	0	0	0	0	0	0	0	0	0	0	0	13	0
Louisiana St U & A&M College	222	7	16	7	19	20	20	13	23	19	9	3	10	10	29	17
Louisiana St U Med-New Orleans	33	0	0	0	0	0	22	10	0	0	0	0	0	0	1	0
Louisiana St U Med-Shreveport	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0
Louisiana Tech Univ	18	0	0	0	0	5	0	0	0	0	0	0	0	0	0	13
New Orleans Bapt Theol Seminary	37	0	0	0	0	0	0	0	0	2	0	1	0	11	2	21
Northeast Louisiana Univ	4	0	0	0	0	0	2	2	0	0	0	0	0	0	0	0
Southern U/A&M U-Baton Rouge	1	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
Tulane Univ of Louisiana	95	1	5	1	6	18	16	7	1	8	13	7	2	6	1	3
Univ of New Orleans	36	0	4	0	0	0	0	0	0	3	13	0	0	0	16	0
Univ of Southwestern Louisiana	31	0	0	0	15	7	3	0	0	0	1	0	0	5	0	0
MAINE	40	4	1	2	1	5	6	0	6	3	0	4	0	0	8	0
Univ of Maine	40	4	1	2	1	5	6	0	6	3	0	4	0	0	8	0
MARYLAND	885	39	33	22	53	147	157	77	13	39	93	19	24	50	87	32
Johns Hopkins Univ	271	11	10	8	6	36	77	53	0	3	31	11	5	16	3	1
Loyola College in Maryland	9	0	0	0	0	0	0	0	0	9	0	0	0	0	0	0
Morgan State Univ	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Peabody Inst of Johns Hopkins	8	0	0	0	0	0	0	0	0	0	0	0	0	8	0	0
Uniformed Serv U of Health Sci	14	0	0	0	0	0	9	1	0	4	0	0	0	0	0	0
U of Maryland-Baltimore County	42	1	4	0	7	7	10	0	0	8	3	0	0	2	0	0
U of Maryland-College Park	476	27	16	11	40	104	30	3	13	15	59	8	19	24	79	28
U of Maryland-Eastern Shore	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0
U of Maryland Sch of Med	57	0	3	0	0	0	31	20	0	0	0	0	0	0	0	3
MASSACHUSETTS	2,196	143	121	40	107	367	295	69	11	87	240	52	45	170	301	148
American Internatl College	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Boston College	108	1	7	0	0	0	3	9	1	15	13	4	1	13	28	13
Boston Univ	294	19	6	4	5	23	43	12	0	12	35	7	10	37	66	15
Brandeis Univ	101	3	8	0	10	0	19	0	0	2	24	9	11	8	0	7
Clark Univ	21	2	2	1	0	0	2	0	0	6	6	1	0	0	0	1
Harvard Univ	564	29	20	3	19	10	124	39	0	10	71	24	12	74	86	43
Mass Coll Pharm & Health Sci	3	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0
Mass Inst of Technology	522	58	37	26	46	236	30	0	0	4	41	4	0	11	1	28
New England Conserv of Music	4	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0
Northeastern Univ	75	9	6	0	4	17	4	0	0	15	19	0	0	0	1	0
Simmons College	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Smith College	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Springfield College	2	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0
Tufts Univ	83	7	3	0	1	10	36	0	0	8	7	0	3	1	1	6
Univ of Mass-Amherst	306	8	21	4	20	47	21	5	10	11	23	3	8	22	87	16
Univ of Mass-Boston	8	0	0	2	0	0	1	0	0	4	1	0	0	0	0	0
Univ of Mass-Lowell	58	7	8	0	2	16	4	1	0	0	0	0	0	0	19	1
Univ of Mass-Worcester	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
Worcester Polytechnic Inst	13	0	3	0	0	8	2	0	0	0	0	0	0	0	0	0
MICHIGAN	1,522	51	84	29	72	271	164	70	65	124	115	37	25	133	199	83
Andrews Univ	22	0	0	0	0	0	0	0	0	5	0	0	0	4	11	2
Michigan State Univ	413	16	26	5	19	36	54	1	56	31	36	9	10	27	51	36
Michigan Technological Univ	54	4	7	4	0	21	6	0	7	0	0	0	0	4	0	1
Oakland Univ	11	1	0	0	0	6	2	0	0	0	0	0	0	0	2	0
Univ of Detroit Mercy	17	0	1	0	0	2	0	0	0	14	0	0	0	0	0	0
Univ of Michigan	715	25	32	19	32	178	64	59	2	38	66	27	13	91	32	37
Wayne State Univ	216	5	18	0	11	28	38	10	0	22	7	1	1	7	64	4
Western Michigan Univ	74	0	0	1	10	0	0	0	0	14	6	0	1	0	39	3
MINNESOTA	861	24	29	3	37	113	96	58	55	66	45	12	22	57	144	100
Luther Seminary	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Mayo Graduate School	8	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0
Univ of Minnesota-Minneapolis	683	24	29	3	37	113	87	43	55	41	43	12	22	55	80	39
Univ of St. Thomas	17	0	0	0	0	0	0	0	0	0	0	0	0	0	17	0
Walden Univ	149	0	0	0	0	0	1	15	0	25	2	0	0	1	47	58
MISSISSIPPI	349	4	13	1	5	27	32	8	34	42	13	5	9	10	106	40
Delta State Univ	10	0	0	0	0	0	0	0	0	0	0	0	0	0	10	0
Jackson State Univ	4	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0
Mississippi State Univ	118	0	0	0	2	19	12	1	34	5	9	2	0	0	23	11
Reformed Theological Seminary	9	0	0	0	0	0	0	0	0	0	0	0	0	1	0	8
Univ of Mississippi	94	3	2	0	3	8	3	5	0	16	4	2	3	4	26	15
U of Mississippi-Med Center	12	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0
Univ of Southern Mississippi	102	1	11	1	0	0	5	2	0	21	0	1	6	5	43	6
MISSOURI	634	14	32	12	18	104	94	6	23	67	43	6	18	33	105	59
Concordia Seminary	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Midwest Bapt Theol Seminary	23	0	0	0	0	0	0	0	0	0	0	0	0	7	0	16
St. Louis Univ	106	0	0	3	1	1	17	3	0	12	4	0	1	8	44	12
U of Missouri-Columbia	217	3	8	4	3	31	22	0	23	29	22	1	10	5	45	11
U of Missouri-Kansas City	37	0	2	0	0	1	4	3	0	11	0	0	0	6	7	3
U of Missouri-Rolla	60	4	2	1	2	51	0	0	0	0	0	0	0	0	0	0
U of Missouri-St. Louis	24	0	7	0	0	0	0	0	0	9	2	0	0	0	6	0
Washington University	164	7	13	4	12	20	51	0	0	6	15	5	7	7	3	14
MONTANA	67	5	4	2	7	5	10	0	6	8	0	0	0	0	20	0
Montana State Univ	40	5	3	1	3	5	7	0	3	0	0	0	0	0	13	0
Univ of Montana	27	0	1	1	4	0	3	0	3	8	0	0	0	0	7	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix A.

APPENDIX TABLE A-7 (Continued)

	1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
NEBRASKA	255	3	15	4	11	14	35	5	27	20	12	3	13	20	55	18
Creighton Univ	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
Univ of Nebraska-Lincoln	249	3	15	4	11	14	29	5	27	20	12	3	13	20	55	18
NEVADA	80	1	5	10	1	12	14	0	0	9	2	0	9	0	17	0
Univ of Nevada-Las Vegas	13	0	0	0	0	0	0	0	0	0	0	0	3	0	10	0
Univ of Nevada-Reno	67	1	5	10	1	12	14	0	0	9	2	0	6	0	7	0
NEW HAMPSHIRE	96	11	10	4	7	11	30	0	3	2	9	2	2	0	4	1
Dartmouth College	45	7	3	2	3	8	21	0	0	1	0	0	0	0	0	0
Univ of New Hampshire	51	4	7	2	4	3	9	0	3	1	9	2	2	0	4	1
NEW JERSEY	877	51	54	23	78	138	115	9	12	68	86	44	23	89	44	43
Drew Univ	14	0	0	0	0	0	0	1	0	1	0	1	2	6	0	3
Fairleigh Dickinson Univ	14	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0
New Jersey Inst of Technology	27	0	0	1	4	22	0	0	0	0	0	0	0	0	0	0
Princeton Theol Seminary	14	0	0	0	0	0	0	0	0	1	0	2	0	4	0	7
Princeton Univ	300	35	27	5	22	48	23	0	0	9	50	23	9	47	0	2
Rutgers St U-New Brunswick	381	14	13	17	45	55	62	6	12	12	30	18	12	32	34	19
Rutgers St U-Newark	39	0	7	0	1	1	7	2	0	4	6	0	0	0	0	11
Seton Hall Univ	44	0	7	0	0	0	1	0	0	26	0	0	0	0	10	0
Stevens Inst of Technology	22	2	0	0	6	12	0	0	0	1	0	0	0	0	0	1
Univ of Med & Dent of NJ	22	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0
NEW MEXICO	282	13	12	7	16	51	29	6	9	17	15	7	7	16	70	7
New Mexico Inst of Mining & Tech	9	1	1	3	2	2	0	0	0	0	0	0	0	0	0	0
New Mexico State Univ	76	5	4	0	2	21	11	0	9	4	0	0	0	0	16	4
Univ of New Mexico	197	7	7	4	12	28	18	6	0	13	15	7	7	16	54	3
NEW YORK	3,854	174	206	68	224	426	521	79	61	352	393	118	155	387	469	221
Adelphi Univ	45	0	0	0	0	0	0	13	0	27	0	0	0	0	0	5
Albany Medical College	10	0	0	0	0	0	10	0	0	0	0	0	0	0	0	0
Alfred Univ	9	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0
City U of NY-Grad Sch/U Ctr	293	14	16	1	25	15	47	7	0	39	33	2	32	42	3	17
Clarkson Univ	35	0	5	0	2	27	1	0	0	0	0	0	0	0	0	0
Columbia Univ	448	26	22	25	23	33	62	4	0	24	65	40	25	58	12	29
Columbia U-Teachers College	212	0	0	0	0	0	0	0	0	0	0	0	0	0	212	0
Cornell Univ	525	34	37	10	29	88	89	8	51	7	73	14	15	38	16	16
Cornell Univ Medical Campus	24	0	0	0	0	0	24	0	0	0	0	0	0	0	0	0
Fordham Univ	118	0	0	0	0	0	1	0	0	28	17	2	5	5	41	19
Hofstra Univ	36	0	0	0	0	0	0	0	0	31	0	0	0	0	5	0
Jewish Theol Sem of America	6	0	0	0	0	0	0	0	0	0	0	0	0	5	1	0
Juilliard School, The	9	0	0	0	0	0	0	0	0	0	0	0	0	9	0	0
Long Island U-Brooklyn Campus	10	0	0	0	0	0	0	0	0	10	0	0	0	0	0	0
Manhattan School of Music	15	0	0	0	0	0	0	0	0	0	0	0	0	15	0	0
New School for Social Research	49	0	0	0	0	0	0	0	0	29	19	0	0	1	0	0
New York Medical College	4	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0
New York Univ	381	7	14	3	30	0	43	21	0	20	31	21	24	67	47	53
Pace Univ	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Polytechnic Univ	43	3	10	0	4	26	0	0	0	0	0	0	0	0	0	0
Rensselaer Polytechnic Inst	154	11	19	2	24	79	1	0	0	0	5	0	0	3	0	10
Rockefeller Univ	20	2	0	0	0	0	18	0	0	0	0	0	0	0	0	0
St. John's Univ-Queens	20	0	0	0	0	0	4	2	0	7	0	1	0	0	6	0
State Univ of NY-Albany	156	5	5	5	7	0	13	5	0	36	29	0	2	10	21	18
State Univ of NY-Binghamton Univ	104	0	7	3	13	9	3	0	0	19	21	5	11	13	0	0
State Univ of NY-Buffalo	319	7	20	2	20	58	47	9	0	15	19	14	17	27	50	14
State Univ of NY-Stony Brook	242	30	18	7	21	22	41	0	0	19	29	10	12	33	0	0
SUNY Coll-Envirn Sci & Forestry	29	0	3	6	0	5	4	0	10	1	0	0	0	0	0	0
SUNY College of Optometry	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
SUNY-Hlth Sci Ctr-Brooklyn	14	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0
SUNY-Hlth Sci Ctr-Syracuse	11	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0
Syracuse Univ	199	12	10	3	13	39	10	3	0	12	28	3	2	12	39	13
Union College	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Union Theological Seminary	7	0	0	0	0	0	0	0	0	0	0	1	0	2	0	4
Univ of Rochester	241	23	20	1	13	16	45	6	0	12	24	5	10	47	14	5
Yeshiva Univ	29	0	0	0	0	0	0	0	0	16	0	0	0	0	2	11
Yeshiva U-Einstein Coll of Med	29	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0
NORTH CAROLINA	1,001	30	65	20	41	136	195	44	52	53	98	15	39	69	112	32
Duke Univ	233	13	12	5	12	36	64	1	1	7	27	7	16	22	0	10
East Carolina U-Sch of Med	5	0	0	0	0	0	4	0	0	0	0	0	0	0	1	0
North Carolina St U-Raleigh	305	9	13	8	17	92	35	2	51	7	18	0	0	0	51	2
U of N Carolina-Chapel Hill	369	7	38	7	12	8	77	39	0	25	52	8	16	35	25	20
U of N Carolina-Greensboro	72	0	0	0	0	0	1	2	0	14	1	0	7	12	35	0
Wake Forest Univ	17	1	2	0	0	0	14	0	0	0	0	0	0	0	0	0
NORTH DAKOTA	83	0	8	0	5	4	15	1	7	14	0	0	2	0	27	0
North Dakota State Univ	24	0	4	0	5	3	4	1	7	0	0	0	0	0	0	0
Univ of North Dakota	59	0	4	0	0	1	11	0	0	14	0	0	2	0	27	0
OHIO	1,791	68	112	20	63	295	205	57	43	135	109	43	41	120	344	136
Air Force Inst of Technology	14	2	0	0	3	9	0	0	0	0	0	0	0	0	0	0
Bowling Green State Univ	74	0	0	0	2	0	7	0	0	17	6	3	7	18	11	3
Case Western Reserve Univ	166	11	12	1	4	60	29	11	0	6	4	0	3	12	2	11
Cleveland State Univ	30	0	4	0	0	4	0	0	0	0	2	0	0	0	9	11
Hebrew Union College	3	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0
Kent State Univ	170	10	3	2	11	0	12	2	0	27	8	6	3	3	61	22

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APPENDIX TABLE A-7 (Continued)

	1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
OHIO (continued)																
Medical College of Ohio-Toledo	13	1	0	0	0	0	12	0	0	0	0	0	0	0	0	0
Miami Univ	43	0	7	1	0	0	4	0	0	7	1	4	5	1	13	0
Ohio State Univ	688	18	44	13	35	102	77	20	43	27	64	20	10	35	122	58
Ohio Univ	116	7	0	0	2	10	7	0	0	11	0	4	7	13	36	19
Univ of Akron	109	8	23	0	0	28	3	0	0	13	8	1	0	0	24	1
Univ of Cincinnati	263	8	14	3	4	53	41	19	0	20	16	2	4	35	34	10
Univ of Dayton	29	0	0	0	0	18	2	0	0	0	0	0	0	0	9	0
Univ of Toledo	64	3	5	0	1	11	3	5	0	7	0	3	2	0	23	1
Wright State Univ	9	0	0	0	1	0	8	0	0	0	0	0	0	0	0	0
OKLAHOMA	384	12	19	13	8	69	34	5	19	34	18	4	9	15	102	23
Oklahoma State Univ	162	6	5	6	3	23	9	0	19	12	9	1	6	2	54	7
Univ of Oklahoma	191	6	14	7	4	32	25	5	0	14	9	3	1	13	42	16
Univ of Tulsa	31	0	0	0	1	14	0	0	0	8	0	0	2	0	6	0
OREGON	451	20	22	18	32	35	72	24	33	23	43	4	8	28	69	20
Oregon Graduate Inst of Sci & Tech	24	2	2	3	4	9	4	0	0	0	0	0	0	0	0	0
Oregon Health Sciences Univ	20	0	0	0	0	0	13	5	0	2	0	0	0	0	0	0
Oregon State Univ	186	6	9	10	16	23	41	15	33	2	7	0	0	0	23	1
Portland State Univ	30	0	0	2	1	3	0	0	0	0	13	0	0	0	10	1
Univ of Oregon	191	12	11	3	11	0	14	4	0	19	23	4	8	28	36	18
PENNSYLVANIA	2,225	88	100	11	109	413	253	75	24	134	193	37	59	176	379	174
Bryn Mawr College	21	2	0	0	0	0	1	0	0	4	1	0	2	7	0	4
Carnegie-Mellon Univ	178	16	5	0	29	81	9	0	0	7	10	4	0	2	0	15
Drexel Univ	62	4	2	0	5	30	9	0	0	5	0	1	0	0	0	6
Duquesne Univ	24	0	2	0	0	0	1	2	0	3	0	0	1	9	0	6
Hahnemann Univ	13	0	0	0	0	0	5	0	0	8	0	0	0	0	0	0
Indiana Univ of Pennsylvania	31	0	0	0	0	0	0	0	0	0	2	0	11	6	12	0
Lehigh Univ	110	12	5	3	6	48	9	0	0	2	1	0	6	0	16	2
Med College of Pennsylvania	7	0	0	0	0	0	6	1	0	0	0	0	0	0	0	0
Pennsylvania State Univ	585	17	38	5	24	160	66	11	24	25	40	1	8	27	109	30
Phila Coll of Pharm & Sci	7	0	0	0	0	0	1	6	0	0	0	0	0	0	0	0
Temple Univ	320	5	6	0	10	4	22	10	0	45	23	5	11	30	127	22
Thomas Jefferson Univ	22	0	0	0	0	0	22	0	0	0	0	0	0	0	0	0
Univ of Pennsylvania	496	27	19	0	24	53	63	21	0	19	94	21	14	60	32	49
Univ of Pittsburgh	322	5	21	3	11	37	37	21	0	16	22	4	6	31	71	37
Villanova Univ	4	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0
Westminster Theol Seminary	8	0	0	0	0	0	0	0	0	0	0	1	0	4	0	3
Widener Univ	15	0	0	0	0	0	0	3	0	0	0	0	0	0	12	0
PUERTO RICO	50	2	4	0	0	0	0	0	0	27	0	1	0	1	15	0
Caribbean Ctr for Adv Studies	14	0	0	0	0	0	0	0	0	14	0	0	0	0	0	0
Inter Amer U PR-Metro Campus	6	0	0	0	0	0	0	0	0	0	0	0	0	0	6	0
Univ of Puerto Rico	30	2	4	0	0	0	0	0	0	13	0	1	0	1	9	0
RHODE ISLAND	246	10	15	17	18	34	37	13	2	15	25	8	27	24	0	1
Brown Univ	139	7	8	6	17	11	18	1	0	5	25	8	10	23	0	0
Univ of Rhode Island	107	3	7	11	1	23	19	12	2	10	0	0	17	1	0	1
SOUTH CAROLINA	370	6	28	9	21	40	57	22	7	15	12	8	13	18	80	34
Clemson Univ	99	5	7	1	9	38	20	1	7	0	0	0	0	0	4	7
Medical Univ of South Carolina	20	0	0	0	0	0	17	3	0	0	0	0	0	0	0	0
South Carolina State Univ	14	0	0	0	0	0	0	0	0	0	0	0	0	0	14	0
Univ of South Carolina	237	1	21	8	12	2	20	18	0	15	12	8	13	18	62	27
SOUTH DAKOTA	58	0	0	2	0	1	4	0	3	4	3	0	0	0	41	0
S Dakota Sch of Mines & Tech	3	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0
South Dakota State Univ	7	0	0	0	0	0	1	0	3	0	3	0	0	0	0	0
Univ of South Dakota	48	0	0	0	0	0	3	0	0	4	0	0	0	0	41	0
TENNESSEE	637	18	23	5	19	70	85	14	12	59	45	14	20	35	167	51
East Tennessee State Univ	27	0	0	0	0	0	7	0	0	0	0	0	0	0	20	0
Geo Peabody Coll for Teachers	43	0	0	0	0	0	0	0	0	0	0	0	0	0	43	0
Meharry Medical College	6	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0
Mid-America Bapt Theol Sem	4	0	0	0	0	0	0	0	0	0	0	0	0	1	0	3
Middle Tennessee State Univ	15	0	2	0	0	0	0	0	0	1	0	0	6	0	6	0
Tennessee State Univ	29	0	0	0	0	0	0	0	0	0	1	0	0	0	28	0
Tennessee Technological Univ	8	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0
Univ of Memphis	98	0	2	0	4	7	2	2	0	22	1	3	0	5	33	17
Univ of Tennessee-Knoxville	254	3	15	5	6	37	28	7	12	23	30	5	8	11	34	30
Univ of Tennessee-Memphis	18	1	0	0	0	0	16	1	0	0	0	0	0	0	0	0
Vanderbilt Univ	135	14	4	0	9	18	26	4	0	13	13	6	6	18	3	1
TEXAS	2,717	114	125	72	143	466	368	108	80	180	140	37	51	180	426	227
Baylor College of Medicine	45	0	0	0	0	0	45	0	0	0	0	0	0	0	0	0
Baylor Univ	38	1	6	0	2	0	0	0	0	1	0	0	0	12	15	1
Dallas Theological Seminary	10	0	0	0	0	0	0	0	0	0	0	0	0	2	0	8
East Texas State Univ	48	0	0	0	0	0	0	0	0	1	0	0	0	0	47	0
Lamar Univ	6	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0
Rice Univ	124	17	7	8	24	27	9	0	0	5	8	8	5	5	0	1
St. Mary's Univ	5	0	0	0	0	0	0	0	0	4	0	0	0	0	1	0
Sam Houston State Univ	7	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0
Southern Methodist Univ	55	0	0	5	13	25	1	0	0	3	8	0	0	0	0	0
Southwestern Bapt Theol Sem	79	0	0	0	0	0	0	0	0	2	0	1	0	17	1	58
Stephen F Austin St Univ	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0

NOTE: Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front on Appendix A.

APPENDIX TABLE A-7 (Continued)

	1995 Total	Physics and Astronomy	Chemistry	Earth, Atmos., and Marine Sci.	Math and Computer Sci.	Engineering	Biosciences	Health Sciences	Agricultural Sciences	Psychology	Other Social Sciences	History	Eng. and Amer. Lang. and Lit.	Other Humanities	Education	Professional/ Other Fields
TEXAS (continued)																
Texas A&M Univ-College Station	564	15	37	23	33	125	83	13	66	20	29	4	7	1	87	21
Texas Christian Univ	18	2	3	0	0	0	1	0	0	5	0	2	1	4	0	0
Texas Southern Univ	15	0	0	0	0	0	0	0	0	0	0	0	0	0	15	0
Texas Tech Univ	142	3	9	4	9	17	6	0	12	16	9	3	4	9	27	14
Texas Woman's Univ	88	0	0	0	0	0	8	24	1	13	9	0	1	4	20	8
Univ of Dallas	4	0	0	0	0	0	0	0	0	0	1	0	0	3	0	0
Univ of Houston	208	5	12	7	9	35	17	3	0	29	7	5	6	4	59	10
Univ of North Texas	188	6	5	0	14	0	6	0	0	29	5	3	13	24	68	15
Univ of North Texas-Hlth Sci Ctr	5	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0
Univ of Texas-Arlington	94	2	7	0	6	45	0	0	0	3	0	0	0	3	0	28
Univ of Texas-Austin	724	48	36	14	30	174	52	36	0	39	49	10	13	85	86	52
Univ of Texas-Dallas	71	12	3	6	3	8	9	1	0	3	8	0	1	6	0	11
Univ of Texas-El Paso	6	0	0	4	0	2	0	0	0	0	0	0	0	0	0	0
U Tex-Hlth Sci Ctr-Houston	74	1	0	1	0	0	45	27	0	0	0	0	0	0	0	0
U Tex-Hlth Sci Ctr-San Antonio	25	2	0	0	0	0	23	0	0	0	0	0	0	0	0	0
U Tex-Med Branch-Galveston	33	0	0	0	0	0	27	4	0	0	0	1	0	1	0	0
U Tex-Southwestern Med Ctr	40	0	0	0	0	2	31	0	0	7	0	0	0	0	0	0
UTAH	367	13	35	7	20	83	34	9	10	42	34	2	4	11	49	14
Brigham Young Univ	94	4	5	0	6	17	2	0	0	23	11	1	0	2	23	0
Univ of Utah	209	5	25	5	13	47	26	9	0	12	20	1	4	9	19	14
Utah State Univ	64	4	5	2	1	19	6	0	10	7	3	0	0	0	7	0
VERMONT	54	0	7	0	0	3	19	0	1	14	0	0	0	1	9	0
Middlebury College	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Univ of Vermont	53	0	7	0	0	3	19	0	1	14	0	0	0	0	9	0
VIRGINIA	1,005	32	40	23	76	183	116	35	31	76	64	15	28	20	191	75
College of William & Mary	41	7	1	11	3	2	3	0	0	0	0	1	0	1	12	0
George Mason Univ	115	0	0	3	27	11	8	9	0	14	17	1	2	0	17	6
Old Dominion Univ	59	5	0	3	7	18	6	2	0	3	2	0	0	0	11	2
Presbyterian Sch of Christian Ed	5	0	0	0	0	0	0	0	0	0	0	0	0	0	5	0
Regent Univ	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Union Theological Seminary	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Univ of Virginia	309	16	14	4	19	47	38	12	0	21	26	11	26	19	50	6
Virginia Commonwealth Univ	108	0	9	0	0	0	33	9	0	23	1	0	0	0	12	21
Virginia Polytech Inst & St U	360	4	16	2	20	105	28	3	31	15	18	2	0	0	84	32
WASHINGTON	687	23	29	30	42	102	100	31	46	32	58	8	21	50	77	38
Gonzaga Univ	16	0	0	0	0	0	0	0	0	0	0	0	0	0	16	0
Seattle Univ	20	0	0	0	0	0	0	0	0	0	0	0	0	0	20	0
Univ of Washington	481	19	21	28	35	80	68	28	23	18	39	6	14	45	28	29
Washington State Univ	170	4	8	2	7	22	32	3	23	14	19	2	7	5	13	9
WEST VIRGINIA	158	4	8	0	4	27	16	1	5	10	4	2	0	0	77	0
Marshall Univ	3	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0
West Virginia Univ	155	4	8	0	4	27	13	1	5	10	4	2	0	0	77	0
WISCONSIN	906	43	58	17	60	127	134	27	45	36	88	24	26	62	99	60
Marquette Univ	57	0	4	0	3	12	2	0	0	2	0	1	2	8	11	12
Medical College of Wisconsin	15	1	0	0	0	0	14	0	0	0	0	0	0	0	0	0
Univ of Wisconsin-Madison	757	39	48	16	51	111	112	19	45	26	79	23	21	52	78	37
Univ of Wisconsin-Milwaukee	77	3	6	1	6	4	6	8	0	8	9	0	3	2	10	11
WYOMING	63	5	5	4	2	11	10	0	7	6	0	0	0	0	13	0
Univ of Wyoming	63	5	5	4	2	11	10	0	7	6	0	0	0	0	13	0

Top 50 Doctorate-Granting Institutions, 1995

1.	Univ of California-Berkeley	827	
2.	Univ of Illinois-Urbana/Champaign	761	
3.	Univ of Wisconsin-Madison	757	
4.	Univ of Texas-Austin	724	
5.	Univ of Michigan	715	
6.	Ohio State University	688	
7.	Univ of Minnesota-Minneapolis	683	
8.	Univ of California-Los Angeles	663	
9.	Pennsylvania State Univ	585	
10.	Stanford Univ	583	
11.	Harvard Univ	564	
12.	Texas A&M Univ-College Station	564	
13.	Univ of Southern California	541	
14.	Cornell Univ	525	
15.	Massachusetts Inst of Technology	522	
16.	Purdue Univ	507	
17.	Univ of Pennsylvania	496	
18.	Univ of Washington	481	
19.	Univ of Maryland-College Park	476	
20.	Columbia Univ	448	
21.	Michigan State Univ	413	
22.	Indiana Univ-Bloomington	407	
23.	Univ of Florida	400	
24.	Univ of Arizona	394	
25.	New York Univ	381	
26.	Rutgers State Univ-New Brunswick	381	
27.	Northwestern Univ	374	
28.	Univ of North Carolina-Chapel Hill	369	
29.	Univ of Chicago	367	
30.	Yale University	365	
31.	Virginia Polytech Inst & State Univ	360	
32.	Univ of Colorado	344	
33.	Univ of Georgia	342	
34.	Univ of Iowa	339	
35.	Univ of California-Davis	337	
36.	Nova Southeastern Univ	334	
37.	Univ of Pittsburgh	322	
38.	Temple Univ	320	
39.	State Univ of New York-Buffalo	319	
40.	Iowa State Univ	318	
41.	Univ of Virginia	309	
42.	Univ of Massachusetts-Amherst	306	
43.	North Carolina State Univ-Raleigh	305	
44.	Arizona State Univ	302	
45.	Princeton Univ	300	
46.	Florida State Univ	295	
47.	Boston Univ	294	
48.	City U of NY-Grad Sch/Univ Ctr	293	
49.	Johns Hopkins Univ	271	
50.	Univ of Connecticut	264	

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX B: Trend Tables, 1985-1995

Appendix B includes the following two tables:

B-1 Number of Doctorate Recipients, by Subfield, 1985-1995
B-2 Number of Doctorate Recipients, by Gender, Race/Ethnicity, and Citizenship, 1976, 1980, and 1985-1995

TABLE B-1: Table B-1 presents data for the most recent decade by subfield of doctorate. In general, the subfields correspond to the fields on the questionnaire's Specialties List located at the back of this report; some, however, do not appear on the current Specialties List because they are no longer included in the survey taxonomy. A dash (-) in a column indicates that the field was not on the Specialties List for that year.

Field groupings in this table may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates (SED); see inside the back cover for a description of field groupings as reported in these tables. The "general" field categories—e.g., "chemistry, general"—include individuals who either received the doctorate in the general subject area or did not indicate a particular specialty field. The "other" field categories—e.g., "chemistry, other"—include individuals whose specified doctoral discipline was not among the specialty fields.

The seven tables in Appendix A present additional information on the most recent cohort of Ph.D.s by field of doctorate.

TABLE B-2: Table B-2 displays, by gender and citizenship, data on the race/ethnicity of doctorate recipients for 1976, 1980, and the past decade. Table B-2 contains three panels, each displayed on a separate page. The first panel includes all doctorates; the others disaggregate the data by gender.

The reader should note that numbers in Table B-2 have been revised since publication of* Summary Report 1994. *Because of late questionnaire returns and responses to follow-ups for missing information, data are subject to revision in the year after survey closure. New follow-up procedures implemented in 1990 and later years have increased coverage of several variables, including citizenship and race/ethnicity. One result has been greater postsurvey adjustment to racial/ethnic data than in earlier years. (Note: The greatest adjustment was to the numbers of black Ph.D.s in 1990 and 1991—an increase of about 7.5 percent each year.) Updates to 1994 racial/ethnic data are shown in Table B-2 in this year's report.

The racial/ethnic question has undergone several revisions over the years. In 1977 it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget (OMB) for use in federally sponsored surveys; an explanation of the effect of these changes is

detailed on page 13 of *Summary Report 1977*. (Note: Changes in the OMB guidelines prompted the moving of persons having origins in the Indian subcontinent from the white category to the Asian category.) In 1980 the item was further revised in two ways: (1) the Hispanic category was subdivided into Puerto Rican, Mexican American, and other Hispanic to provide more detail for users of the racial/ethnic data, and (2) respondents were asked to check only one racial category. (Before 1980, doctorate recipients could check more than one category to indicate their race.) The item was modified again in 1982 to separate the questions on race and ethnicity. Since then, respondents have been asked to first check one of the four racial group categories (American Indian, Asian, black, or white) and then indicate whether or not they are Hispanic. In Table B-2, *Ph.D.s who reported Hispanic heritage, regardless of racial designation, are counted as Hispanic*. The remaining survey respondents are then counted in the respective racial groups. (Note: Doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as American Indian in this report.)

Tables A-2 and A-4 in Appendix A present additional information on the most recent cohort of Ph.D.s by race/ethnicity.

APPENDIX TABLE B-1 Number of Doctorate Recipients, by Subfield, 1985-1995

	Year of Doctorate										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TOTAL ALL FIELDS	31,297	31,902	32,370	33,501	34,326	36,067	37,522	38,856	39,771	41,017	41,610
PHYSICAL SCIENCES	4,531	4,807	5,030	5,309	5,455	5,859	6,279	6,501	6,496	6,822	6,806
MATHEMATICS	688	729	740	749	859	892	1,039	1,058	1,146	1,118	1,190
Applied Mathematics	116	135	131	142	158	185	193	213	188	206	211
Algebra	55	46	57	54	50	39	72	69	84	78	82
Analysis and Functional Analysis	83	81	86	76	103	90	132	105	105	107	99
Geometry	35	38	30	44	47	42	66	45	44	35	45
Logic	30	23	18	20	12	19	23	28	19	29	35
Number Theory	18	20	15	26	23	26	30	25	42	37	35
Mathematical Statistics	150	141	143	152	167	157	206	217	228	205	205
Topology	35	34	41	27	37	50	57	58	54	38	51
Computing Theory and Practice	15	10	14	12	12	12	19	12	18	16	14
Operations Research	22	29	22	29	22	29	16	22	37	26	36
Mathematics, General	85	125	137	134	177	191	180	209	276	269	305
Mathematics, Other	44	47	46	33	51	52	45	55	51	72	72
COMPUTER SCIENCE	310	399	450	515	612	705	800	869	880	903	998
Computer Science	249	355	384	442	519	612	720	791	825	833	914
Information Sciences and Systems	61	44	66	73	93	93	80	78	55	70	84
PHYSICS AND ASTRONOMY	1,080	1,187	1,237	1,302	1,274	1,393	1,411	1,537	1,544	1,692	1,652
Astronomy	43	52	46	66	49	52	50	55	76	66	89
Astrophysics	57	57	54	64	64	76	75	79	69	78	84
Acoustics	10	15	17	16	15	21	13	18	27	20	18
Chemical and Atomic/Molecular	58	70	79	77	74	87	76	85	95	140	110
Electron	4	2	6	2	4	2	1	-	-	-	-
Elementary Particles	154	147	159	174	135	163	182	153	170	176	183
Fluids	16	6	21	17	14	17	14	17	19	12	18
Nuclear	86	89	74	88	81	73	66	86	82	90	91
Optics	51	58	50	65	78	76	85	94	96	104	98
Plasma and High-Temperature	55	61	72	65	61	42	58	65	62	79	46
Polymer	11	11	15	20	7	11	17	17	29	29	23
Solid State and Low-Temperature	248	280	287	252	296	306	372	408	336	388	371
Physics, General	176	222	238	271	269	323	247	297	340	343	355
Physics, Other	111	117	119	125	127	144	155	163	143	167	166
CHEMISTRY	1,836	1,903	1,975	2,015	1,970	2,100	2,193	2,213	2,137	2,257	2,161
Analytical	285	257	314	301	289	293	304	304	286	334	317
Inorganic	251	260	240	250	256	242	260	268	237	262	257
Nuclear	7	18	13	7	6	13	14	7	8	10	5
Organic	494	511	511	531	511	452	538	512	518	544	483
Medicinal/Pharmaceutical	60	58	65	73	64	48	82	68	99	102	96
Physical	304	293	302	318	310	325	364	398	336	334	338
Polymer	84	72	96	81	78	81	111	83	107	117	116
Theoretical	48	41	46	50	46	55	45	59	53	52	40
Chemistry, General	213	289	297	310	312	524	400	449	431	447	458
Chemistry, Other	90	104	91	94	98	67	75	65	62	55	51
EARTH, ATMOS., & MARINE SCI.	617	589	628	728	740	769	836	824	789	852	805
Atmospheric Physics and Chemistry	16	21	24	19	15	18	20	36	13	27	27
Atmospheric Dynamics	21	16	17	25	16	20	21	23	23	27	16
Meteorology	23	27	17	35	27	20	31	28	34	32	25
Atmos. Sci./Meteorology, General	10	7	16	14	14	23	26	27	22	37	44
Atmos. Sci./Meteorology, Other	10	7	13	10	15	2	10	6	7	6	18
Geology	111	118	114	144	165	166	192	166	197	194	186
Geochemistry	48	37	31	46	39	56	64	62	50	59	42
Geophysics and Seismology	92	89	75	83	87	91	117	108	101	106	93
Paleontology	23	16	21	24	17	21	24	25	21	17	20
Mineralogy, Petrology	28	17	24	19	36	26	36	29	9	21	19
Stratigraphy, Sedimentation	23	14	22	30	24	25	29	23	28	27	16
Geomorphology and Glacial Geology	13	11	18	9	10	14	18	12	16	13	11
Applied Geology	8	4	5	7	6	6	1	-	-	-	-
Geological & Related Sci., General	11	12	18	8	19	31	30	18	15	18	21
Geological & Related Sci., Other	11	12	29	31	28	28	33	31	17	24	22
Environmental Science	42	35	29	58	68	50	35	57	68	61	80
Hydrology and Water Resources	17	16	18	24	24	13	16	29	25	30	24
Oceanography	68	78	73	81	87	89	85	82	98	91	83
Marine Sciences	24	22	38	28	26	39	27	32	27	34	31
Misc. Physical Sciences, Other	18	30	26	33	17	31	21	30	18	28	27
ENGINEERING	3,166	3,376	3,712	4,187	4,543	4,894	5,215	5,438	5,698	5,822	6,007
Aerospace, Aeronautic. & Astronautic.	124	118	142	150	178	192	207	234	228	230	251
Agricultural	60	52	74	70	102	101	84	84	86	89	73
Bioengineering and Biomedical	69	67	75	114	115	129	149	147	171	173	189
Ceramic Sciences	19	25	42	30	35	43	58	42	42	39	39
Chemical	440	476	527	624	625	561	621	607	624	630	602
Civil	358	387	441	488	498	505	509	540	563	602	572
Communications	30	23	26	24	25	35	21	30	22	33	29
Computer	55	77	62	100	117	131	178	175	167	202	189
Electrical, Electronics	631	706	691	886	995	1,110	1,206	1,278	1,354	1,438	1,513
Engineering Mechanics	89	94	113	105	110	111	113	132	128	132	108
Engineering Physics	12	13	13	9	16	16	23	25	21	17	17
Engineering Science	31	30	26	32	27	37	42	51	55	46	56

NOTE: Dash (-) indicates that the field was not on the questionnaire's Specialties List that year. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix B.

APPENDIX TABLE B-1 (Continued)

	Year of Doctorate										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Environmental Health Engineering	33	42	36	43	40	48	66	54	61	82	84
Industrial/Manufacturing	92	101	120	127	162	151	165	196	236	228	283
Materials Science	188	187	238	252	257	307	361	365	416	433	476
Mechanical	424	442	544	610	650	773	762	855	902	883	916
Metallurgical	96	93	112	92	88	90	70	78	77	67	73
Mining and Mineral	16	22	27	17	33	39	38	26	24	23	19
Naval Architecture, Marine Eng.	8	9	7	9	9	8	5	-	-	-	-
Nuclear	96	98	84	104	86	114	107	120	108	85	105
Ocean	25	14	24	21	20	17	21	21	24	29	21
Operations Research	54	54	51	44	68	46	76	56	56	47	48
Petroleum	24	18	23	33	29	49	28	54	52	42	48
Polymer/Plastics	40	37	34	28	58	48	42	64	61	53	58
Systems	57	33	47	44	30	51	48	37	57	51	47
Engineering, General	26	55	54	49	61	75	78	64	47	39	60
Engineering, Other	69	103	79	82	109	107	137	103	116	129	131
LIFE SCIENCES	5,780	5,734	5,754	6,165	6,341	6,604	6,929	7,114	7,394	7,736	7,913
BIOLOGICAL SCIENCES	3,793	3,807	3,839	4,112	4,115	4,327	4,646	4,798	5,091	5,200	5,370
Biochemistry	581	576	573	613	669	678	765	715	846	804	825
Biomedical Sciences	-	-	-	-	-	-	-	-	-	-	93
Biophysics	69	72	86	97	87	103	100	125	103	123	154
Biotechnology Research	-	-	-	-	-	-	-	-	8	14	4
Bacteriology	17	12	13	7	11	15	11	13	14	18	13
Plant Genetics	31	20	26	26	18	31	23	33	41	30	35
Plant Pathology	38	28	33	30	22	37	50	32	41	40	32
Plant Physiology	58	52	62	74	47	51	65	68	48	70	55
Botany, Other	120	121	106	112	117	104	105	107	105	117	102
Anatomy	135	86	92	88	80	70	77	75	76	66	65
Biometrics and Biostatistics	40	30	37	47	46	47	59	63	74	72	67
Cell Biology	100	130	127	118	133	145	149	188	231	237	236
Ecology	200	183	158	155	161	166	189	180	177	201	203
Developmental Biology/Embryology	15	9	6	7	10	22	37	48	57	62	64
Endocrinology	17	17	19	21	21	24	33	27	16	26	20
Entomology	173	170	123	133	139	147	138	139	114	123	121
Biological Immunology	124	146	136	179	152	153	177	181	169	161	191
Molecular Biology	277	298	303	364	413	413	481	527	582	598	618
Microbiology	289	326	301	333	340	335	372	377	433	423	426
Neuroscience	156	120	153	163	181	192	238	238	276	284	305
Nutritional Sciences	113	122	141	127	128	118	106	132	134	147	136
Parasitology	21	25	16	20	20	13	20	17	17	22	14
Toxicology	99	104	115	108	111	91	86	105	100	120	123
Human and Animal Genetics	105	91	113	118	112	153	160	142	172	203	202
Human and Animal Pathology	110	91	127	112	105	101	122	114	130	128	109
Human and Animal Pharmacology	235	245	234	252	241	243	262	278	273	256	274
Human and Animal Physiology	245	240	248	225	272	278	272	266	271	289	262
Zoology, Other	147	155	139	167	132	122	125	134	114	117	145
Biological Sciences, General	190	213	229	256	231	333	278	315	305	288	350
Biological Sciences, Other	88	125	123	160	116	142	146	159	164	161	126
HEALTH SCIENCES	729	770	800	882	974	956	1,041	1,112	1,197	1,296	1,331
Speech-Lang. Pathology & Audiology	99	82	107	93	91	93	90	82	98	95	106
Environmental Health	31	39	29	52	35	38	38	44	38	51	52
Health Systems/Services Admin.	-	-	-	-	-	-	-	-	35	53	62
Public Health	103	103	96	121	129	123	132	157	153	142	152
Epidemiology	76	80	86	97	107	102	115	108	120	168	153
Exercise Physiology/Sci., Kinesiology	-	-	-	-	-	-	-	-	-	87	118
Nursing	183	216	218	247	308	261	325	338	373	336	354
Pharmacy	106	104	133	95	111	116	115	160	146	148	144
Rehabilitation/Therapeutic Services	-	-	-	-	-	-	17	25	36	43	20
Veterinary Medicine	51	41	31	48	48	70	56	63	61	56	55
Health Sciences, General	13	27	12	29	19	36	28	30	38	41	35
Health Sciences, Other	67	78	88	100	126	117	125	105	99	76	80
AGRICULTURAL SCIENCES	1,258	1,157	1,115	1,171	1,252	1,321	1,242	1,204	1,106	1,240	1,212
Agricultural Economics	148	160	139	156	164	145	168	141	137	162	173
Agricultural Business & Management	-	-	-	0	2	2	1	0	1	0	3
Animal Breeding and Genetics	28	25	23	27	23	22	18	23	18	17	19
Animal Nutrition	78	65	82	54	67	54	57	41	52	58	50
Dairy Science	-	-	-	12	16	20	19	14	11	11	14
Poultry Science	-	-	-	10	11	17	13	22	16	21	11
Fisheries Science and Management	36	31	32	42	34	42	39	26	38	48	49
Animal Sciences, Other	95	91	76	86	95	90	92	97	74	86	85
Agronomy and Crop Science	158	159	143	141	140	143	117	123	104	143	114
Plant Breeding and Genetics	88	78	70	83	64	87	69	82	68	81	72
Plant Pathology	89	85	76	46	63	64	90	63	58	55	52
Plant Protection-Pest Management	-	-	-	1	6	4	2	-	-	-	-
Plant Sciences, Other	21	22	20	23	15	23	17	29	28	24	30
Food Sciences	136	121	131	16	1	-	-	-	-	-	-
Food Distribution	-	-	-	-	-	-	-	-	-	1	0
Food Engineering	-	-	-	6	11	10	12	14	9	16	7
Food Sciences, Other	-	-	-	119	147	141	137	151	141	152	135
Soil Sciences	97	103	74	18	-	-	-	-	-	-	-
Soil Chemistry/Microbiology	-	-	-	33	28	27	24	24	26	21	27
Soil Sciences, Other	-	-	-	62	75	91	78	63	59	69	72
Horticulture Science	75	60	71	61	75	101	78	65	62	65	67

NOTE: Dash (-) indicates that the field was not on the questionnaire's Specialties List that year. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix B.

APPENDIX TABLE B-1 (Continued)

	Year of Doctorate										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Wildlife Management	38	20	23	3	-	-	-	-	-	-	-
Forestry Science	105	88	100	15	-	-	-	-	-	-	-
Forest Biology	-	-	-	21	22	27	17	29	18	20	24
Forest Engineering	-	-	-	3	1	2	2	2	3	0	4
Forest Management	-	-	-	18	21	14	22	16	17	17	20
Wood Sci. and Pulp/Paper Tech.	-	-	-	7	16	16	16	21	20	26	25
Conservation/Renewable Nat. Res.	-	-	-	7	12	16	19	9	13	21	24
Forestry and Related Sci., Other	-	-	-	35	57	62	45	62	55	59	72
Wildlife/Range Management	-	-	-	36	52	58	59	55	54	52	50
Agricultural Sciences, General	5	4	5	9	7	5	3	9	10	4	6
Agricultural Sciences, Other	61	45	50	21	27	38	28	23	14	11	7
SOCIAL SCIENCES (INCL. PSYCH.)	5,765	5,893	5,790	5,781	5,961	6,093	6,152	6,216	6,544	6,614	6,623
Anthropology	353	381	352	325	325	324	341	320	342	384	375
Area Studies	19	28	17	16	17	22	24	33	36	34	27
Criminology	38	24	29	43	32	42	35	37	39	41	44
Demography/Population Studies	25	15	26	19	22	20	28	17	22	23	15
Economics	784	834	796	825	872	836	861	885	906	913	954
Econometrics	27	25	25	27	26	26	24	25	24	26	26
Geography	120	120	111	129	105	131	108	111	137	146	150
Human/Individual & Family Develop.	-	-	-	-	-	-	-	-	-	129	152
International Relations/Affairs	78	76	82	77	94	97	88	76	102	112	72
Political Science and Government	406	414	404	392	430	462	434	513	507	589	600
Public Policy Analysis	70	81	83	73	79	87	111	107	98	94	92
Sociology	461	491	423	449	436	428	465	495	513	525	539
Statistics	60	65	49	47	69	69	31	29	48	46	48
Urban Affairs/Studies	75	50	72	86	62	67	90	86	123	132	103
Social Sciences, General	17	36	30	28	26	23	36	33	32	21	35
Social Sciences, Other	114	127	118	171	158	178	226	186	196	148	124
PSYCHOLOGY	3,118	3,126	3,173	3,074	3,208	3,281	3,250	3,263	3,419	3,251	3,267
Clinical	1,181	1,173	1,214	1,095	1,259	1,337	1,305	1,309	1,373	1,285	1,292
Cognitive and Psycholinguistics	76	70	80	83	79	76	94	101	104	129	104
Comparative	11	14	9	7	8	8	7	2	5	8	4
Counseling	431	449	486	482	501	466	497	507	488	497	470
Developmental and Child	175	184	200	176	148	159	155	170	202	180	153
Experimental	165	147	146	135	146	143	142	154	143	139	151
Educational	127	106	89	103	105	98	110	91	91	69	74
Family and Marriage Counseling	-	-	-	-	-	-	-	-	-	-	51
Industrial and Organizational	102	110	107	118	104	126	142	138	158	137	145
Personality	21	16	25	18	28	20	13	17	22	19	16
Physiological/Psychobiology	79	73	69	85	62	46	45	55	85	93	93
Psychometrics	10	11	9	11	6	8	9	5	9	5	10
Quantitative	16	23	13	12	11	15	7	10	16	17	13
School	92	116	93	115	107	82	82	88	95	84	91
Social	167	141	133	140	128	145	147	139	125	153	155
Psychology, General	266	309	343	368	364	371	324	295	306	280	307
Psychology, Other	199	184	157	126	152	181	171	182	197	156	138
HUMANITIES	3,429	3,461	3,500	3,555	3,552	3,822	4,099	4,445	4,485	4,745	5,061
History, American	176	197	198	209	206	211	251	277	269	310	344
History, Asian	-	-	-	-	-	-	-	-	-	-	43
History, European	143	121	121	127	107	151	127	176	162	180	185
History/Philosophy of Sci. & Tech.	23	24	25	22	20	26	27	28	37	26	41
History, General	85	83	94	103	85	111	121	103	116	140	148
History, Other	116	138	148	142	120	113	137	141	142	144	128
Classics	44	51	55	56	51	58	55	58	61	84	61
Comparative Literature	133	101	121	139	103	97	150	163	153	163	191
Linguistics	176	189	199	166	188	167	227	266	214	221	201
Speech and Rhetorical Studies	38	30	37	37	35	38	86	98	111	142	139
Letters, General	13	19	25	16	13	19	17	18	18	22	43
Letters, Other	26	37	39	43	60	52	44	38	37	25	34
American Studies	87	68	75	70	76	72	92	81	101	88	94
Archeology	24	28	31	23	26	22	33	33	38	34	35
Art History/Criticism/Conservation	137	126	143	134	145	135	125	154	158	182	181
Music	447	476	499	504	521	572	587	641	613	685	713
Philosophy	238	248	233	222	270	243	285	279	274	302	298
Religion	181	182	182	217	215	219	187	231	256	252	248
Drama/Theater Arts	92	88	82	92	79	106	91	95	91	102	80
LANGUAGE AND LITERATURE	1,164	1,164	1,112	1,147	1,152	1,308	1,350	1,465	1,524	1,537	1,719
American	204	215	190	186	192	229	253	291	293	296	327
English	525	504	478	531	528	567	599	612	655	647	753
French	86	102	103	101	106	123	100	124	137	129	151
German	62	79	77	76	73	78	71	96	105	67	93
Italian	14	15	21	14	20	25	32	20	19	32	35
Spanish	145	122	133	137	134	173	173	179	179	212	209
Russian	28	28	19	13	13	19	25	28	28	38	28
Slavic	10	8	5	5	7	7	14	15	13	10	16
Chinese	14	13	13	12	9	16	19	20	21	25	20
Japanese	13	9	9	6	13	9	7	12	11	12	7
Hebrew	9	11	13	12	10	14	11	20	15	10	11
Arabic	5	9	8	14	6	7	4	12	10	4	8
Other Language and Literature	49	49	43	40	41	41	42	36	38	55	61
Humanities, General	27	23	23	25	19	28	29	21	30	31	24
Humanities, Other	59	68	58	61	61	74	78	79	80	75	111

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APPENDIX TABLE B-1 (Continued)

	Year of Doctorate										
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
EDUCATION	6,733	6,649	6,454	6,362	6,281	6,511	6,446	6,644	6,661	6,695	6,546
Curriculum and Instruction	825	794	762	815	841	839	807	899	851	819	887
Educational Admin. and Supervision	1,625	1,637	1,686	1,749	1,633	1,663	1,428	1,287	1,340	1,207	1,084
Educational Leadership	-	1	1	0	0	1	483	682	767	781	834
Educ./Instruct. Media Design	101	79	68	67	76	55	73	62	96	111	121
Educ. Stat./Research Methods	74	58	73	51	59	59	80	61	64	68	63
Educ. Assess., Test., & Meas.	44	47	37	55	42	40	32	45	23	28	19
Educational Psychology	388	330	320	323	301	323	323	346	290	311	296
School Psychology	102	92	95	98	85	87	90	88	86	97	71
Social/Phil. Found. of Educ.	135	124	114	122	110	86	109	101	108	140	130
Special Education	270	273	248	257	259	225	226	260	277	241	251
Counseling Educ./Couns. & Guidance	397	316	315	325	264	301	270	259	287	284	262
Higher Educ./Evaluation & Research	589	612	570	399	373	424	344	380	357	428	454
Pre-elementary/Early Childhood	65	87	73	83	63	42	85	98	97	90	69
Elementary Education	122	94	105	93	99	110	73	73	65	71	61
Junior High Education	1	0	1	1	-	-	-	-	-	-	-
Secondary Education	68	86	65	67	53	56	40	28	33	24	24
Adult and Continuing Education	207	223	203	229	236	211	210	208	233	215	234
TEACHING FIELDS	1,118	1,142	1,065	988	968	923	971	1,006	942	960	921
Agricultural Education	40	39	39	32	35	38	49	43	54	52	35
Art Education	43	43	52	42	39	44	28	46	38	33	39
Business Education	52	50	36	44	40	34	32	16	27	25	21
English Education	68	79	72	57	51	52	58	61	53	56	60
Foreign Languages Education	30	37	37	53	33	31	46	50	48	54	60
Health Education	89	81	91	86	100	95	78	98	83	97	98
Home Economics Education	21	17	17	17	19	10	21	12	14	11	15
Technical/Industrial Arts Education	13	20	24	11	17	18	13	11	16	20	15
Mathematics Education	65	72	74	56	69	65	73	62	69	74	92
Music Education	81	94	109	76	97	78	96	96	80	89	96
Nursing Education	21	40	36	34	29	24	18	29	19	24	18
Physical Education and Coaching	220	210	192	184	176	191	185	167	161	139	104
Reading Education	113	134	94	74	95	82	102	121	95	97	85
Science Education	88	65	63	67	48	72	72	73	73	85	71
Social Science Education	24	22	17	23	13	11	19	19	9	10	14
Speech Education	7	5	5	5	1	5	1	-	-	-	-
Technical Education	-	-	-	13	28	15	25	35	21	30	19
Trade and Industrial Education	82	86	68	67	47	18	17	11	24	24	13
Teacher Ed./Spec. Acad. & Voc., Other	61	48	39	47	31	40	38	56	58	40	66
Education, General	294	355	368	359	416	535	424	429	411	484	424
Education, Other	308	299	285	281	403	531	378	332	334	336	341
PROFESSIONAL/OTHER FIELDS	1,893	1,982	2,130	2,142	2,193	2,284	2,402	2,498	2,493	2,583	2,654
BUSINESS AND MANAGEMENT	790	902	981	1,033	1,067	1,036	1,163	1,248	1,281	1,283	1,323
Accounting	150	157	160	175	186	172	172	180	183	179	168
Banking/Financial Support Services	104	126	156	148	151	134	172	172	170	134	162
Business Admin. and Management	174	222	225	265	245	277	204	241	324	319	338
Business/Managerial Economics	20	28	26	27	27	21	19	21	33	40	37
International Business	-	-	-	-	-	-	-	-	-	22	23
Mgmt. Info. Sys./Business Data Proc.	-	-	-	-	-	-	72	103	102	117	111
Marketing Management and Research	94	110	113	126	130	120	134	139	166	167	153
Business Statistics	9	3	8	6	15	10	5	-	-	-	-
Operations Research	45	46	64	50	52	46	58	67	63	54	59
Organizational Behavior	68	57	66	74	95	64	72	81	73	102	99
Business Mgmt./Admin. Serv., General	49	56	75	75	57	70	123	112	87	87	92
Business Mgmt./Admin. Serv., Other	77	97	88	87	109	122	132	132	80	62	81
COMMUNICATIONS	266	258	309	247	306	323	332	330	321	371	379
Communications Research	55	79	90	72	85	87	72	45	33	40	40
Journalism	22	18	7	21	15	21	7	-	-	-	-
Mass Communications	-	-	-	-	-	-	68	85	117	156	120
Radio and Television	19	13	16	12	29	17	6	-	-	-	-
Communication Theory	-	-	-	-	-	-	25	47	41	45	53
Communications, General	89	75	102	70	79	86	70	76	69	68	78
Communications, Other	81	73	94	72	98	112	84	77	61	62	88
OTHER PROFESSIONAL FIELDS	812	796	778	812	766	858	836	880	864	888	926
Architectural Environmental Design	36	27	33	31	43	41	67	60	54	67	55
Home Economics	90	88	67	58	55	74	29	58	57	31	31
Law	25	31	29	33	26	34	23	20	29	33	36
Library Science	71	57	48	57	60	42	52	51	70	42	47
Parks/Recreation/Leisure/Fitness	-	-	-	-	-	-	-	-	44	37	54
Public Administration	112	88	78	92	97	88	107	108	117	135	129
Social Work	220	235	214	241	206	246	240	248	237	272	298
Theology/Religious Education	240	240	254	251	232	271	273	292	240	259	273
Professional Fields, General	0	0	1	2	0	3	3	1	1	1	1
Professional Fields, Other	18	30	54	47	47	59	42	42	15	11	2
OTHER FIELDS	25	26	62	50	54	67	71	40	27	41	26

NOTE: Dash (-) indicates that the field was not on the questionnaire's Specialties List that year. Field groupings may differ from those in reports published by federal sponsors of the Survey of Earned Doctorates. See inside the back cover for a description of fields as reported in this table. Refer also to the explanatory note about this table in front of Appendix B.

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX TABLE B-2 Number of Doctorate Recipients, by Gender, Race/Ethnicity, and Citizenship, 1976, 1980, and 1985-1995

Total All Doctorates

	Year of Doctorate												
	1976	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TOTAL MEN AND WOMEN	32,946	31,020	31,297	31,902	32,370	33,501	34,326	36,067	37,522	38,856	39,771	41,017	41,610
U.S. Citizens	27,269	25,222	23,370	23,086	22,984	23,291	23,400	24,905	25,561	25,977	26,420	27,129	27,603
Permanent Visas	1,494	1,290	1,324	1,433	1,578	1,622	1,626	1,698	1,857	1,979	2,255	3,748	4,307
Temporary Visas	3,529	3,644	5,227	5,276	5,612	6,195	6,648	8,093	9,312	9,953	9,934	9,406	8,806
Unknown Citizenship	654	864	1,376	2,107	2,196	2,393	2,652	1,371	792	947	1,162	734	894
Total Known Race/Ethnicity	30,300	28,771	29,070	28,946	29,229	30,355	30,954	33,878	35,769	37,161	38,253	39,817	40,165
U.S. Citizens	26,190	23,975	22,858	22,674	22,514	22,908	23,024	24,531	25,073	25,626	26,188	26,875	27,300
Permanent Visas	1,288	1,258	1,291	1,357	1,509	1,545	1,564	1,637	1,796	1,905	2,221	3,700	4,266
Temporary Visas	2,767	3,462	4,850	4,838	5,144	5,840	6,297	7,557	8,789	9,535	9,677	9,114	8,537
Unknown Citizenship	55	76	71	77	62	62	69	153	111	95	167	128	62
American Indians	40	75	96	100	116	94	94	98	132	152	121	145	148
U.S. Citizens	40	75	96	99	115	94	94	97	130	149	120	142	148
Permanent Visas*	0	0	0	0	0	0	0	0	2	0	0	0	0
Temporary Visas*	0	0	0	1	1	0	0	1	0	2	1	3	0
Unknown Citizenship	0	0	0	0	0	0	0	0	0	1	0	0	0
Asians	2,123	2,621	3,646	3,730	4,129	4,780	5,192	6,293	7,528	8,287	8,668	9,366	9,696
U.S. Citizens	334	458	517	533	543	614	633	641	789	846	889	949	1,138
Permanent Visas	641	644	553	528	625	621	635	665	742	915	1,123	2,596	3,162
Temporary Visas	1,131	1,472	2,529	2,645	2,935	3,518	3,907	4,931	5,949	6,505	6,606	5,799	5,375
Unknown Citizenship	17	47	47	24	26	27	17	56	48	21	50	22	21
Blacks	1,304	1,443	1,439	1,277	1,221	1,267	1,246	1,353	1,460	1,431	1,612	1,677	1,798
U.S. Citizens	1,092	1,031	912	830	771	818	821	900	1,004	968	1,108	1,095	1,287
Permanent Visas	54	73	131	126	139	152	141	149	156	145	169	179	168
Temporary Visas	155	331	394	313	305	291	273	291	293	311	322	388	335
Unknown Citizenship	3	8	2	8	6	6	11	13	7	7	13	15	8
Hispanics	471	826	1,000	1,056	1,054	1,048	1,063	1,228	1,319	1,402	1,431	1,534	1,530
U.S. Citizens	351	417	561	572	617	595	582	721	731	778	834	884	916
Permanent Visas	23	73	73	107	91	98	112	116	136	131	139	145	139
Temporary Visas	93	328	360	372	338	349	363	386	446	482	454	503	471
Unknown Citizenship	4	8	6	5	8	6	6	5	6	11	4	2	4
Whites	26,362	23,806	22,889	22,783	22,709	23,166	23,359	24,906	25,330	25,889	26,421	27,095	26,993
U.S. Citizens	24,373	21,994	20,772	20,640	20,468	20,787	20,894	22,172	22,419	22,885	23,237	23,805	23,811
Permanent Visas	570	468	534	596	654	674	676	707	760	714	790	780	797
Temporary Visas	1,388	1,331	1,567	1,507	1,565	1,682	1,754	1,948	2,101	2,235	2,294	2,421	2,356
Unknown Citizenship	31	13	16	40	22	23	35	79	50	55	100	89	29
Unknown Race/Ethnicity	2,646	2,249	2,227	2,956	3,141	3,146	3,372	2,189	1,753	1,695	1,518	1,200	1,445
U.S. Citizens	1,079	1,247	512	412	470	383	376	374	488	351	232	254	303
Permanent Visas	206	32	33	76	69	77	62	61	61	74	34	48	41
Temporary Visas	762	182	377	438	468	355	351	536	523	418	257	292	269
Unknown Citizenship	599	788	1,305	2,030	2,134	2,331	2,583	1,218	681	852	995	606	832

NOTE: See explanatory note about this table in front of Appendix B.

*In most cases, non-U.S. American Indians are citizens of Canada or Latin America.

APPENDIX TABLE B-2 (Continued)

Doctorates: MEN

	Year of Doctorate												
	1976	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TOTAL MEN	25,262	21,612	20,553	20,595	20,938	21,682	21,813	22,962	23,652	24,436	24,658	25,211	25,277
U.S. Citizens	20,427	16,875	14,223	13,638	13,574	13,725	13,395	14,166	14,379	14,501	14,497	14,730	14,909
Permanent Visas	1,204	971	999	1,068	1,117	1,164	1,139	1,190	1,224	1,292	1,467	2,638	2,906
Temporary Visas	3,121	3,154	4,394	4,414	4,722	5,134	5,444	6,632	7,518	7,963	7,865	7,330	6,853
Unknown Citizenship	510	612	937	1,475	1,525	1,659	1,835	974	531	680	829	513	609
Total Known Race/Ethnicity	23,055	19,974	18,949	18,443	18,676	19,411	19,403	21,340	22,355	23,159	23,526	24,330	24,236
U.S. Citizens	19,553	15,966	13,862	13,348	13,250	13,449	13,116	13,900	14,023	14,244	14,325	14,561	14,696
Permanent Visas	1,035	949	971	1,004	1,064	1,097	1,094	1,150	1,177	1,236	1,442	2,604	2,882
Temporary Visas	2,424	2,997	4,058	4,038	4,314	4,822	5,143	6,174	7,081	7,615	7,656	7,101	6,627
Unknown Citizenship	43	62	58	53	48	43	50	116	74	64	103	64	31
American Indians	31	46	40	59	63	52	49	52	74	82	61	74	81
U.S. Citizens	31	46	40	58	62	52	49	52	74	82	60	71	81
Permanent Visas*	0	0	0	0	0	0	0	0	0	0	0	0	0
Temporary Visas*	0	0	0	1	1	0	0	0	0	0	1	3	0
Unknown Citizenship	0	0	0	0	0	0	0	0	0	0	0	0	0
Asians	1,799	2,151	2,947	3,042	3,350	3,845	4,163	5,031	5,881	6,426	6,614	7,070	7,108
U.S. Citizens	244	313	329	349	369	414	446	427	483	530	551	591	670
Permanent Visas	547	513	437	417	455	456	459	482	489	604	731	1,878	2,198
Temporary Visas	993	1,282	2,139	2,258	2,506	2,957	3,245	4,077	4,873	5,274	5,294	4,582	4,225
Unknown Citizenship	15	43	42	18	20	18	13	45	36	18	38	19	15
Blacks	845	869	850	709	702	699	684	733	784	769	840	889	872
U.S. Citizens	652	498	379	325	318	317	327	351	417	394	439	409	482
Permanent Visas	47	62	117	106	118	126	125	128	131	123	138	143	126
Temporary Visas	143	305	353	275	261	251	222	243	232	246	252	329	260
Unknown Citizenship	3	4	1	3	5	5	10	11	4	6	11	8	4
Hispanics	357	597	646	665	677	678	662	760	806	860	875	866	906
U.S. Citizens	255	261	300	302	332	321	307	380	370	410	423	438	460
Permanent Visas	16	48	50	71	50	64	69	69	88	72	94	79	76
Temporary Visas	82	280	294	289	288	288	283	309	344	371	357	347	368
Unknown Citizenship	4	8	2	3	7	5	3	2	4	7	1	2	2
Whites	20,023	16,311	14,466	13,968	13,884	14,137	13,845	14,764	14,810	15,022	15,136	15,431	15,269
U.S. Citizens	18,371	14,848	12,814	12,314	12,169	12,345	11,987	12,690	12,679	12,828	12,852	13,052	13,003
Permanent Visas	425	326	367	410	441	451	441	471	469	437	479	504	482
Temporary Visas	1,206	1,130	1,272	1,215	1,258	1,326	1,393	1,545	1,632	1,724	1,752	1,840	1,774
Unknown Citizenship	21	7	13	29	16	15	24	58	30	33	53	35	10
Unknown Race/Ethnicity	2,207	1,638	1,604	2,152	2,262	2,271	2,410	1,622	1,297	1,277	1,132	881	1,041
U.S. Citizens	874	909	361	290	324	276	279	266	356	257	172	169	213
Permanent Visas	169	22	28	64	53	67	45	40	47	56	25	34	24
Temporary Visas	697	157	336	376	408	312	301	458	437	348	209	229	226
Unknown Citizenship	467	550	879	1,422	1,477	1,616	1,785	858	457	616	726	449	578

NOTE: See explanatory note about this table in front of Appendix B.

*In most cases, non-U.S. American Indians are citizens of Canada or Latin America.

APPENDIX TABLE B-2 (Continued)

Doctorates: WOMEN

	Year of Doctorate												
	1976	1980	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
TOTAL WOMEN	7,684	9,408	10,744	11,307	11,432	11,819	12,513	13,105	13,870	14,420	15,113	15,806	16,333
U.S. Citizens	6,842	8,347	9,147	9,448	9,410	9,566	10,005	10,739	11,182	11,476	11,923	12,399	12,694
Permanent Visas	290	319	325	365	461	458	487	508	633	687	788	1,110	1,401
Temporary Visas	408	490	833	862	890	1,061	1,204	1,461	1,794	1,990	2,069	2,076	1,953
Unknown Citizenship	144	252	439	632	671	734	817	397	261	267	333	221	285
Total Known Race/Ethnicity	7,245	8,797	10,121	10,503	10,553	10,944	11,551	12,538	13,414	14,002	14,727	15,487	15,929
U.S. Citizens	6,637	8,009	8,996	9,326	9,264	9,459	9,908	10,631	11,050	11,382	11,863	12,314	12,604
Permanent Visas	253	309	320	353	445	448	470	487	619	669	779	1,096	1,384
Temporary Visas	343	465	792	800	830	1,018	1,154	1,383	1,708	1,920	2,021	2,013	1,910
Unknown Citizenship	12	14	13	24	14	19	19	37	37	31	64	64	31
American Indians	9	29	56	41	53	42	45	46	58	70	60	71	67
U.S. Citizens	9	29	56	41	53	42	45	45	56	67	60	71	67
Permanent Visas*	0	0	0	0	0	0	0	0	2	0	0	0	0
Temporary Visas*	0	0	0	0	0	0	0	1	0	2	0	0	0
Unknown Citizenship	0	0	0	0	0	0	0	0	0	1	0	0	0
Asians	324	470	699	688	779	935	1,029	1,262	1,647	1,861	2,054	2,296	2,588
U.S. Citizens	90	145	188	184	174	200	187	214	306	316	338	358	468
Permanent Visas	94	131	116	111	170	165	176	183	253	311	392	718	964
Temporary Visas	138	190	390	387	429	561	662	854	1,076	1,231	1,312	1,217	1,150
Unknown Citizenship	2	4	5	6	6	9	4	11	12	3	12	3	6
Blacks	459	574	589	568	519	568	562	620	676	662	772	788	926
U.S. Citizens	440	533	533	505	453	501	494	549	587	574	669	686	805
Permanent Visas	7	11	14	20	21	26	16	21	25	22	31	36	42
Temporary Visas	12	26	41	38	44	40	51	48	61	65	70	59	75
Unknown Citizenship	0	4	1	5	1	1	1	2	3	1	2	7	4
Hispanics	114	229	354	391	377	370	401	468	513	542	556	668	624
U.S. Citizens	96	156	261	270	285	274	275	341	361	368	411	446	456
Permanent Visas	7	25	23	36	41	34	43	47	48	59	45	66	63
Temporary Visas	11	48	66	83	50	61	80	77	102	111	97	156	103
Unknown Citizenship	0	0	4	2	1	1	3	3	2	4	3	0	2
Whites	6,339	7,495	8,423	8,815	8,825	9,029	9,514	10,142	10,520	10,867	11,285	11,664	11,724
U.S. Citizens	6,002	7,146	7,958	8,326	8,299	8,442	8,907	9,482	9,740	10,057	10,385	10,753	10,808
Permanent Visas	145	142	167	186	213	223	235	236	291	277	311	276	315
Temporary Visas	182	201	295	292	307	356	361	403	469	511	542	581	582
Unknown Citizenship	10	6	3	11	6	8	11	21	20	22	47	54	19
Unknown Race/Ethnicity	439	611	623	804	879	875	962	567	456	418	386	319	404
U.S. Citizens	205	338	151	122	146	107	97	108	132	94	60	85	90
Permanent Visas	37	10	5	12	16	10	17	21	14	18	9	14	17
Temporary Visas	65	25	41	62	60	43	50	78	86	70	48	63	43
Unknown Citizenship	132	238	426	608	657	715	798	360	224	236	269	157	254

SOURCE: National Research Council, Survey of Earned Doctorates.

APPENDIX C: Technical Notes

SURVEY RESPONSE RATES*

Year	Self-Report Rate	Year	Self-Report Rate
1965	97.4	1981	95.7
1966	96.3	1982	95.3
1967	97.3	1983	95.5
1968	97.6	1984	95.1
1969	96.6	1985	94.8
1970	98.1	1986	93.5
1971	97.5	1987	93.1
1972	97.3	1988	92.9
1973	97.5	1989	92.3
1974	94.2	1990	93.6
1975	97.3	1991	94.6
1976	97.2	1992	95.1
1977	96.6	1993	94.7
1978	96.3	1994	94.6
1979	96.4	1995	94.3
1980	96.2		

* The rates for 1965-1994 reflect late responses. The rate for 1995 may increase slightly in the next year if additional questionnaires are received after survey closure. Self-report rates for 1980-1995 are determined from the "source of response" indicator in the doctorate records. Because this indicator was not coded prior to 1980, survey forms for 1965-1979 are assumed to be self-reported if "month signed" or "marital status" is present. "Marital status" is not available from sources other than the doctorate recipient.

As shown above, 94.3 percent of all doctorate recipients in 1995 completed survey forms; this percentage is referred to as the "self-report" rate. For the remaining 5.7 percent of recipients, "skeletal" forms were created with information from doctorate-granting institutions or commencement programs. Whether or not individuals completed the survey questionnaire, the following four data items are available for all recipients: gender, Ph.D. institution, Ph.D. field, and Ph.D. year.

This report presents data obtained from *all* survey forms, both self-reported and skeletal. Readers should note that nonresponse in a tabulation varies according to the *combination* of selected variables. Higher nonresponse rates occur when any of the four variables mentioned above are cross-tabulated with another variable (e.g., educational debt) because the universe consists of the entire doctoral cohort. In other words, the 5.7 percent of Ph.D.s who did not respond to the survey are included, even though their records contain minimal information. Nonresponse is generally lower when citizenship or race/ethnicity is cross-tabulated with a variable such as debt because the population is restricted to a group (e.g., U.S. citizens) that is largely drawn from self-reported forms

and thus more likely to have responses to the debt question. To be more precise, information on debt was not available for only 5.1 percent of U.S. citizens in 1995; nonresponse was low because data on both citizenship and debt were obtained mostly from self-reported forms. Nonresponse was higher for the entire 1995 cohort (7.7 percent) because it included the 5.7 percent of forms that were only partially filled in by institutions or staff of the National Research Council. The same was true for men (7.5 percent) and women (7.1 percent) because gender was known even for Ph.D.s who did not complete a survey form. Cross-tabulating debt with field of doctorate would yield similarly high nonresponse rates because Ph.D. field is available for all recipients.

The percentages shown in the tables and figures in the body of this report are based only on the number of doctorate recipients who *responded* to the applicable survey questions.[1] Appendix C presents nonresponse rates for the variables included in these tables and figures; it also provides descriptive explanations of the data as needed. For additional technical information, please contact:

Doctorate Records Project
National Research Council
OSEP–Room TJ 2006
2101 Constitution Avenue, NW
Washington, DC 20418

Phone: (202) 334-3161

[1] Note that the percentages in Appendix Tables A-3 and A-4 are based on the total doctoral cohort because categories for "unknown" responses are included. See the notes in front of Appendix A for further explanation of these data.

Baccalaureate Institutions of U.S. Minorities

Table 4 is restricted to U.S. minority Ph.D.s (native and naturalized citizens) from 1991 to 1995 who earned baccalaureates at institutions *located in the United States*. Because this population constitutes only 89.2 percent of all U.S. minority Ph.D.s in this period, the totals shown in Table 4 for each group are not all-inclusive. Another 9.4 percent—mostly naturalized Asians and Hispanics—received baccalaureates from foreign institutions, and the remaining 1.4 percent either did not earn a baccalaureate degree or did not report this information. The totals for all U.S. minority Ph.D.s regardless of baccalaureate status are: 4,611 Asians (57.3 percent naturalized); 5,462 blacks (7.6 percent naturalized); 4,143 Hispanics (20.4 percent naturalized); and 689 American Indians (1.0 percent naturalized).

Country of Citizenship (for non-U.S. Ph.D.s)

Country of citizenship (if missing) was first followed up in the 1990 survey. Consequently, nonresponse has been much lower in recent years than prior to 1990. Nonresponse was only 0.6 percent in 1995, compared to 9.9 percent in 1989. Tables 18-19 and 21-32 present data on country of citizenship.

Postgraduation Plans

Postgraduation status: The question on postgraduation status asks recipients to indicate whether they have made a "definite" commitment, are in the process of "negotiating" with one or more organizations, or are seeking a position but have no specific prospects. Because Ph.D.s sometimes complete the survey form months ahead of graduation, it is not possible to determine the final plans of all recipients. It is quite likely that some individuals who check "negotiating" or "seeking" have obtained positions by the time of graduation. Data on postgraduation plans in this report are restricted to the group of Ph.D.s who reported "definite" plans.[2]

[2] Comparisons with the most recent longitudinal Survey of Doctorate Recipients (SDR) show the data on "definite" postgraduation plans to be a reasonable indicator of the actual employment status of new Ph.D.s in the first year or so following receipt of the doctorate. (The SDR, also conducted by the National Research Council, is a follow-up employment survey of a sample of doctorate recipients in science, engineering, and humanities fields.) According to the 1993 SDR, 97 percent of new 1992 Ph.D.s with "definite" plans at the time of graduation were employed in the U.S. labor force in April 1993 (postdoctoral appointments included). Moreover, most were working in the sector reported on their SED survey forms. It is important to note that the April 1993 reference point for the SDR fell 9-22 months after graduation for the 1992 Ph.D.s. This gap in time provides a plausible explanation for movement between sectors.

NONRESPONSE RATES FOR ITEMS IN TABLES

Data Item	Tables	1965	197
Baccalaureate Institution (for U.S. minorities)	Table 4	x	x
Citizenship	Tables 3-5, 7, 9-10, 12, 14, 15-32	1.6	1.5
Country of Citizenship (for non-U.S. citizens)	Tables 18, 20-22, 24-29, 32	x	x
Debt Status	Tables 11, 12	x	x
Doctorate Field	Tables 2, 3, 6-11, 13, 15, 19, 21-23, 31	0.0	0.0
Doctorate Institution	Table 5	x	x
Doctorate Year	All tables	0.0	0.0
Gender	Tables 2, 9, 10, 12, 14, 16	0.0	0.0
Postdoctoral Location (for definite commitments)			
Non-U.S. citizens (any type of plans)	Tables 25, 29-32	x	x
U.S. citizens & permanent visas (employment plans)	Tables 15, 16	x	x
Temporary visas (employment plans)	Table 16	x	x
Postdoctoral Plans (e.g., definite employment vs. study)	Tables 13-16, 27-29, 31-32	x	x
Postdoctoral Sector (for definite employment in U.S.)			
U.S. citizens & permanent visas	Tables 15, 16	x	x
Temporary visas	Table 16	x	x
Postdoctoral Status (e.g., definite vs. seeking)	Tables 13-16, 27-32	x	x
Primary Source of Graduate School Support	Table 10	x	x
Race/Ethnicity			
U.S. citizens	Tables 3-5, 7, 9, 10, 12	x	x
U.S. citizens & permanent visas	Tables 14, 16	x	x
Registered Time to Doctorate (computed)	Tables 8, 9	x	6.9
Total Time to Doctorate (computed)	Tables 8, 9	x	1.6

NOTE: In 1995, 94.1 percent of new doctorate recipients completed the survey form. The item nonresponse rates in this table include the 5.9 percent of recipients who were not self-reporting. Because missing information is sometimes obtained from the doctorate-granting institutions or commencement programs, nonresponse rates for the following variables may be lower than the survey's 5.9 percent rate of nonresponse: citizenship, gender, race/ethnicity, baccalaureate institution, and total time to doctorate (derived from baccalaureate year). Field, institution, and year of doctorate are available for all recipients, as is gender.

x = Year not shown in tables and figures.

NONRESPONSE RATES FOR ITEMS IN TABLES (Continued)

1975	1980	1985	1990	1995	1991-1995	Data Item
x	x	x	x	x	1.1	Baccalaureate Institution (U.S. minorities)
1.9	2.8	4.4	3.8	2.1	2.3	Citizenship
x	x	x	2.8	0.6	x	Country of Citizenship (for non-U.S. citizens)
x	x	x	x	7.7	x	Debt Status
0.0	0.0	0.0	0.0	0.0	x	Doctorate Field
x	x	x	x	0.0	x	Doctorate Institution
0.0	0.0	0.0	0.0	0.0	0.0	Doctorate Year
0.0	0.0	0.0	0.0	0.0	x	Gender
						Postdoctoral Location (for definite commitments)
3.4	6.3	8.4	8.1	0.8	x	Non-U.S. citizens (any type of plans)
2.3	5.5	6.8	3.2	0.1	x	U.S. citizens & permanent visas (employment plans)
3.1	6.4	8.2	5.8	0.5	x	Temporary visas (employment plans)
0.9	0.4	0.4	0.5	0.6	x	Postdoctoral Plans (e.g., definite employment vs. study)
						Postdoctoral Sector (for definite employment in U.S.)
0.6	0.6	1.1	1.1	1.7	x	U.S. citizens & permanent visas
0.0	0.0	0.4	0.4	1.3	x	Temporary visas
5.4	7.3	9.3	9.3	9.1	x	Postdoctoral Status (e.g., definite vs. seeking)
x	x	x	x	25.2	x	Primary Source of Graduate School Support
						Race/Ethnicity
4.1	4.9	2.2	1.5	1.1	1.2	U.S. citizens
4.8	4.8	2.2	1.6	1.1	x	U.S. citizens & permanent visas
8.6	11.2	13.0	22.6	18.3	x	Registered Time to Doctorate (computed)
1.6	3.0	4.0	5.0	4.5	x	Total Time to Doctorate (computed)

x = Year not shown in tables and figures.

Definite commitments: Tables 13-16 and 27-31 include only those Ph.D.s who reported definite postgraduation commitments and, therefore, do not reflect the entire Ph.D. population. The proportions of each doctoral cohort reporting definite commitments are shown below:

Year	% Definite
1975	69.6
1980	70.7
1985	66.9
1990	64.9
1995	59.7

NOTE: These percentages are not adjusted for nonresponse to the question on postgraduation status; nonresponse rates ranged from 5 to 9 percent during these years. See chart of item nonresponse rates for detail.

Postdoctoral location: Revisions to the survey form have resulted in significant increases in response rates for postdoctoral location during the past few years. Doctorate recipients can now check a box for "U.S." or "non-U.S." instead of providing the name and exact location of the organization with which they will be affiliated after the doctorate. This explains the much lower nonresponse in 1995 than in earlier years shown in Tables 15-16, 25, and 29-32. See chart of item nonresponse rates for detail.

Postdoctoral employment commitments in the U.S.: To be included in Tables 15 and 16, Ph.D.s must have reported definite commitments for employment. Foreign locations and employers are excluded. For temporary residents, a U.S. location must have been reported. For U.S. citizens and permanent residents, unknown locations are assumed to be in the United States because of the high "stay" rates for both groups. Based on actual responses to the 1995 survey, 96 percent of U.S. citizens with employment or study commitments intended to remain in the United States, as did 92 percent or more of permanent residents.

Primary Source of Graduate School Support

Although 93.3 percent of doctorate recipients in 1995 answered the question on sources of financial support, only 74.8 percent designated a *primary* source—giving this item the highest item nonresponse rate for the survey. Even so, the nonresponse rate of 25.2 percent in 1995 was 9 points less than the 33.8 percent two years ago. This decrease in nonresponse was likely a result of moving the sentence that requests designation of primary source to the beginning of the question's instructions. Nonresponse should drop further in the 1996 survey because all Ph.D.s will have completed forms containing the clarified instructions; in 1995, 28 percent of the doctorate recipients filled out earlier versions of the questionnaire.

Race/Ethnicity

Adjustments to numbers: Readers should keep in mind that fluctuations in numbers for a racial/ethnic group reflect to some degree any upward or downward change in both overall survey response and response to the racial/ethnic item. Since 1990, response to race/ethnicity has shown great improvement—a result of new procedures for following up missing information. Race/ethnicity was not followed up prior to 1990.

All follow-up responses received before survey closure are included in the data presented in the *Summary Report* for that survey. Responses arriving after closure are included in the next year's report. The extension of survey closure dates in the last three years has allowed most follow-up responses to be received in time to be included in the *Summary Reports* for those surveys. Postsurvey adjustments were greatest for 1990 and 1991 data, much less for 1992, and minimal for 1993. In 1994 response to the racial/ethnic item reached 97 percent by survey closure—the highest rate ever. Any postsurvey adjustments for 1995 data will be included in next year's report, but they are expected to be very slight because of the extended closure. Updated numbers for all recent years appear in Appendix Table B-2 in this report.

History of the racial/ethnic question: Although this item was first introduced to the Survey of Earned Doctorates in 1973, over 25 percent of recipients in 1973 and about 13 percent in 1974 either completed earlier questionnaires or provided unusable responses. Since 1975, the racial/ethnic data have been more reliable, with response rates ranging from 90.1 to 97.1 percent (the latter in 1994). The information on race/ethnicity presented in this report is limited to the period 1976 to 1995.

The racial/ethnic question has undergone several revisions over the years. In 1977 it was modified to correspond to a standard question format recommended by the Federal Interagency Committee on Education and adopted by the Office of Management and Budget (OMB) for use in federally sponsored surveys; an explanation of the effect of these changes is detailed on page 13 of *Summary Report 1977*. (Note: Changes in the OMB guidelines prompted the reclassification of persons having origins in the Indian subcontinent from the white category to the Asian category.) In 1980 the question was further revised in two ways: (1) the Hispanic category was subdivided into Puerto Rican, Mexican American, and other Hispanic, and (2) respondents were asked to check only one racial category. (Before 1980, doctorate recipients could check more than one category to indicate their race.) The item was modified again in 1982 to separate the questions on race and ethnicity. Since then, respondents have been asked to first check one of the four racial group categories (American Indian, Asian, black, or white) and then indicate whether or not they are Hispanic. *In this report, Ph.D.s who reported Hispanic heritage are classified as Hispanic regardless of their racial designations*; the remaining Ph.D.s are then counted in the respective racial groups. (Note: Doctorate recipients who checked the category "American Indian or Alaskan Native" are identified as "American Indian" in this report.)

Time to Doctorate

Total time to degree (TTD): TTD measures the total elapsed time between the baccalaureate and the doctorate (including time not enrolled in school). TTD can be computed only for individuals whose baccalaureate year is known. Baccalaureate year is often obtained from commencement programs or doctorate institutions when not reported by the recipient. *Months are now included in the computation (see note below).*

Registered time to degree (RTD): RTD gauges the time in attendance at colleges and universities between receipt of the baccalaureate and the doctorate. Enrollment may include years of attendance not related to a recipient's doctoral program. RTD can only be computed for individuals who have provided all years of college attendance after the baccalaureate. *Months are now included in the computation (see note below).*

Note about medians: *The method of computing medians has been revised. Beginning with* Summary Report 1994, ***months*** *(of birth, baccalaureate, and doctorate) are included in the calculations whenever available; if months are missing, only years are used in the calculations. (However, medians are not computed for years prior to 1969 because doctorate month is unavailable for all Ph.D.s.) Medians presented in previous* Summary Reports *were based only on years. Some medians would be the same regardless of the method of computation, but the new method generally computes slightly different results. While differences are small (usually one- or two-tenths of a year), readers should consider these differences when comparing medians presented in this report with those in earlier reports.*

SURVEY OF EARNED DOCTORATES 1994–95

Please return this form to the GRADUATE DEAN for forwarding to
The Office of Scientific and Engineering Personnel, National Research Council • 2101 Constitution Avenue, N.W. Washington, D.C. 20418

Please print or type.

1. Name in full: _____ (Last Name) _____ (First Name) _____ (Middle Name)
   Cross Reference: Maiden name or former name legally changed _____

2. Permanent address through which you could always be reached: (Care of, if applicable) _____
   _____ (Number) _____ (Street) _____ (City)
   _____ (State) _____ (Zip Code) _____ (Or Country if not U.S.)

3. U.S. Social Security Number: ___ ___ ___ - ___ ___ - ___ ___ ___ ___

4. Place of birth: _____ (State) _____ (or Country if not U.S.)
   Date of birth: _____ (Month) _____ (Day) _____ (Year)

5. Sex: 1 ☐ Male
   2 ☐ Female

6. Marital status: 0 ☐ Single, never married
   1 ☐ Married
   2 ☐ Separated, divorced, widowed

7. Citizenship:
   0 ☐ United States, native
   1 ☐ United States, naturalized
   Non-United States:
   2 ☐ Permanent Resident of United States (Immigrant visa)
   ↳ _____ (Country of present citizenship)
   3 ☐ Temporary Resident of United States (Non-immigrant visa)
   ↳ _____ (Country of present citizenship)

8. Are you a person with a disability? ☐ Yes ☐ No
   If yes, is it: 1 ☐ Visual 2 ☐ Orthopedic (mobility)
   3 ☐ Auditory (hearing) 4 ☐ Vocal
   5 ☐ Other (specify) _____

9. What is your racial background? (Check only one.)
   0 ☐ American Indian or Alaskan Native
   1 ☐ Asian or Pacific Islander
   2 ☐ Black
   3 ☐ White

10. Are you Hispanic? ☐ No ☐ Yes → 0 ☐ Mexican American
    1 ☐ Puerto Rican
    2 ☐ Other Hispanic

11. How many dependents do you have? _____ Do not include yourself.
    (Dependent = someone receiving at least one half of his or her support from you.)

EDUCATION

12. Location of high school/secondary school last attended: _____ (State) _____ (or Country if not U.S.)
    Date of graduation from high school _____ (Month/Year)

13. List below, chronologically, all colleges (including 2-year) and graduate institutions you have attended and each degree earned (if any). Be sure to give the years attended for ALL institutions attended. Include your doctoral institution(s) (and degree) at the end.

Institution/Branch	State/Country	Years Attended From	Years Attended To	Field of Study — Use Specialties List: Name	Field of Study — Use Specialties List: Number	Degree (if any): Title	Degree Granted: Mo	Degree Granted: Yr
EXAMPLE Genesee Community College	*NY*	*79*	*81*	*Math*	*498*	—	—	—
SUNY/Buffalo	*NY*	*81*	*83*	*Computer Science*	*400*	*B.S.*	*6*	*83*

If a baccalaureate degree (or equivalent) was never received, please check box. ☐

14. How many years were you a **full-time** student between receiving your first baccalaureate degree (or equivalent) and receiving your doctorate (include the period spent on your thesis and/or dissertation). _____ (whole numbers)

15. Identify the field of your dissertation research and enter below the title of your dissertation. If a project report or a musical or literary composition is a degree requirement in lieu of a dissertation, please check box ☐ Name of field _____ Number of field _____ (Use Specialties List)
    Title _____

16. Name the department (or interdisciplinary committee, center, institute, etc.) and school or college of the university which supervised your doctoral program.
    _____ (Department/Institute/Committee/Program) _____ (School)

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(continued on next page)

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17. Indicate your **primary** and **secondary** sources of support during graduate school by entering "1" or "2" in the appropriate box. Check (✓) all other sources from which support was received, if any. (Enter only one source as "1" and one source as "2.")

Own/Family Resources
01 ☐ Own Earnings
02 ☐ Spouse's Earnings
03 ☐ Family Contributions

University-Related
10 ☐ Teaching Assistant
11 ☐ Research Assistant
12 ☐ University Fellow
14 ☐ College Work-Study
19 ☐ Other
Specify

Federal Research Assistant
22 ☐ NIH
32 ☐ NSF
52 ☐ USDA
62 ☐ Other Federal
Specify

Other Federal Support
21 ☐ NIH Traineeship/Fellowship
29 ☐ Other HHS
33 ☐ NSF Fellowship
40 ☐ Patricia Roberts-Harris Fellowship – formerly G*POP (Department of Education)
44 ☐ Title VI Foreign Language

Other Federal Support (continued)
49 ☐ Other Dept. Education
60 ☐ Veterans Administration
53 ☐ USDA Fellowship
69 ☐ Other Federal
Specify

U.S. Nationally Competitive Fellowships (Non-Federal)
70 ☐ Ford Foundation
71 ☐ Rockefeller Foundation
73 ☐ Mellon Foundation
78 ☐ Other Fellowship
Specify

Student Loans
80 ☐ Guaranteed Student Loan (Stafford Loan)
81 ☐ Perkins Loan – formerly National Direct Student Loan
89 ☐ Other Loan
Specify

Other Sources
90 ☐ Business/Employer
91 ☐ Foreign (Non-U.S.) Government
92 ☐ State Government
99 ☐ Other
Specify

18. When you receive your doctorate degree, how much money will you owe that is directly related to your undergraduate and/or graduate education (tuition and fees, living expenses and supplies, transportation to and from school)?

0 ☐ None
1 ☐ $5,000 or less
2 ☐ $5,001-$10,000
3 ☐ $10,001-$15,000
4 ☐ $15,001-$20,000
5 ☐ $20,001-$25,000
6 ☐ $25,001-$30,000
7 ☐ $30,001 or more

19A. Please check the category that most fully describes your status for employment or study during the year immediately preceding the award of the doctorate.

0 ☐ Full-time employed → Go to item 19B →
1 ☐ Held fellowship
2 ☐ Held assistantship
3 ☐ Part-time employed
4 ☐ Not employed
5 ☐ Other (specify) _____

B. If full-time employed, what type of position did you hold?

6 ☐ College or university, faculty
7 ☐ College or university, non-faculty
8 ☐ Elementary or secondary school, teaching
9 ☐ Elementary or secondary school, non-teaching
(11) ☐ Industry or business
(12) ☐ Other (specify) _____

POSTGRADUATION PLANS

20. How definite are your immediate postgraduate plans?

0 ☐ Am returning to, or continuing in, predoctoral employment
1 ☐ Have signed contract or made definite commitment
2 ☐ Am negotiating with one or more specific organizations
3 ☐ Am seeking position but have no specific prospects
4 ☐ Other (specify) _____

21. What best describes your immediate postgraduate plans?

Study
0 ☐ Postdoctoral fellowship
1 ☐ Postdoctoral research associateship
2 ☐ Traineeship
3 ☐ Other study (specify) _____
} For **study** plans go to Item 22

4 ☐ **Employment** (other than 0, 1, 2, 3)
5 ☐ **Military service**
6 ☐ **Other** (specify) _____
} For **employment** plans go to Item 23

22. If you plan to have a postdoctoral fellowship, associateship, traineeship, or otherwise undertake further **study**,

A. What will be the field of your postdoctoral **study**? Please enter number from **Specialties List.** _____

B. What will be the main source of financial support for your study research?

0 ☐ U.S. Government
1 ☐ College or university
2 ☐ Private foundation
3 ☐ Nonprofit, other than private foundation
4 ☐ Other (specify) _____
6 ☐ Unknown

Go to Item 24

23. If you plan to be **employed, enter military service** or **other:**

A. For what type of **employer** will you be working?

Education
a ☐ U.S. 4-yr college or university other than medical school
b ☐ U.S. medical school
c ☐ U.S. jr. or community college
d ☐ Elementary or secondary school
e ☐ Foreign institution

Government
f ☐ Foreign government
g ☐ U.S. federal government
h ☐ U.S. state government
i ☐ U.S. local government

Private Sector
j ☐ Nonprofit organization
k ☐ Industry or business
l ☐ Self-employed

Other
m ☐ Other (specify) _____

B. Indicate what your **primary** and **secondary** work activities will be by entering "1" or "2" in the appropriate box.

0 ☐ Research and development
1 ☐ Teaching
2 ☐ Administration
3 ☐ Professional services to individuals
5 ☐ Other (specify) _____

C. In what field will you be working? Please enter number from **Specialties List** _____

Go to Item 24

24. Where do you intend to live/work/study after graduation? 0 ☐ in U.S. _____ (State) 1 ☐ not in U.S. _____ (Country)

_____ (Name of Organization, if known) _____ (City of Organization, if known)

25. What is the highest educational attainment of your mother and father? Please circle.

Father	Less than high school	High school graduate	Some college	Bachelor's	Master's	Professional	Doctorate
Mother	Less than high school	High school graduate	Some college	Bachelor's	Master's	Professional	Doctorate
Codes for office use	1	2	3	4	5	6	7

Signature _____ Date _____

If you would like a summary of the results of this survey, please check box. ☐ (Available as funding permits.)

SPECIALTIES LIST

Instructions: The following field listing is to be used in responding to items 13, 15, 22A, and 23C. If a field marked with an asterisk (*) is chosen in item 13, please write in your field of specialization in the space provided.

AGRICULTURAL SCIENCES

000 Agricultural Economics
002 Agricultural Business & Mgmt.
005 Animal Breeding & Genetics
010 Animal Nutrition
012 Dairy Science
014 Poultry Science
055 Fisheries Sci. & Mgmt.
019 Animal Sciences, Other*
020 Agronomy & Crop Science
025 Plant Breeding & Genetics
030 Plant Path. (See also 120)
039 Plant Sciences, Other*
043 Food Engineering
044 Food Sciences, Other*
046 Soil Chemistry/Microbiology
049 Soil Sciences, Other*
050 Horticulture Science
066 Forest Biology
068 Forest Engineering
070 Forest Management
072 Wood Sci. & Pulp/Paper Tech.
074 Conserv./Renewable Nat. Res
079 Forestry & Related Sci., Other*
080 Wildlife/Range Management
098 Agricultural Sci., General
099 Agricultural Sci., Other*

BIOLOGICAL SCIENCES

100 Biochemistry
103 Biomedical Sciences
105 Biophysics
107 Biotechnology Research
110 Bacteriology
115 Plant Genetics
120 Plant Path. (See also 030)
125 Plant Physiology
129 Botany, Other*
130 Anatomy
133 Biometrics & Biostatistics
136 Cell Biology (See also 154)
139 Ecology
142 Developmental Bio./Embry.
145 Endocrinology
148 Entomology
151 Biological Immunology
154 Molecular Biology
157 Microbiology
160 Neuroscience
163 Nutritional Sciences
166 Parasitology
169 Toxicology
170 Genetics, Human & Animal
175 Pathology, Human & Animal (See also 120)
180 Pharmacology, Hum. & Anim.
185 Physiology, Human & Animal
189 Zoology, Other*
198 Biological Sciences, General
199 Biological Sciences, Other*

HEALTH SCIENCES

200 Speech-Lang. Path. & Audiol.
210 Environmental Health
212 Health Syst./Serv. Admin.
215 Public Health (See also 133)
220 Epidemiology
222 Exercise Physiology/Science, Kinesiology
230 Nursing
240 Pharmacy
245 Rehabilitation/Therapeutic Services
250 Veterinary Medicine
298 Health Sciences, General
299 Health Sciences, Other*

ENGINEERING

300 Aerospace, Aeronautical & Astronautical
303 Agricultural
306 Bioengineering & Biomedical
309 Ceramic Sciences
312 Chemical
315 Civil
318 Communications
321 Computer
324 Electrical & Electronics
327 Engineering Mechanics
330 Engineering Physics
333 Engineering Science
336 Environmental Health Engin.
339 Industrial & Manufacturing
342 Materials Science
345 Mechanical
348 Metallurgical
351 Mining & Mineral
357 Nuclear
360 Ocean
363 Operations Research (See also 465, 930)
366 Petroleum
369 Polymer & Plastics
372 Systems
398 Engineering, General
399 Engineering, Other*

COMPUTER AND INFORMATION SCIENCES

400 Computer Science
410 Information Sci. & Systems*

MATHEMATICS

420 Applied Mathematics
425 Algebra
430 Analysis & Functional Analysis
435 Geometry
440 Logic (See also 785)
445 Number Theory
450 Mathematical Statistics
455 Topology
460 Computing Theory & Practice
465 Operations Research (See also 363, 930)
498 Mathematics, General
499 Mathematics, Other*

PHYSICAL SCIENCES

Astronomy

500 Astronomy
505 Astrophysics

Atmospheric Sciences and Meteorology

510 Atmospheric Physics & Chem.
512 Atmospheric Dynamics
514 Meteorology
518 Atmos. Sci./Meteorol., Gen.
519 Atmos. Sci./Meteorol., Other*

Chemistry

520 Analytical
522 Inorganic
524 Nuclear
526 Organic
528 Medicinal/Pharmaceutical
530 Physical
532 Polymer
534 Theoretical
538 Chemistry, General
539 Chemistry, Other* (See 100 Biochemistry)

Geological & Related Sciences

540 Geology
542 Geochemistry
544 Geophysics & Seismology
548 Paleontology
548 Mineralogy & Petrology
550 Stratigraphy & Sedimentation
552 Geomorphology & Glacial Geol.
558 Geolog. & Relat. Sci., Gen.
559 Geolog. & Relat. Sci., Other*

Physics

560 Acoustics
561 Chemical & Atomic/Molecular
564 Elementary Particle
566 Fluids
568 Nuclear
569 Optics
570 Plasma & High-Temperature
572 Polymer
574 Solid State & Low-Temperature
578 Physics, General
579 Physics, Other*

Miscellaneous Physical Sciences

580 Environmental Science
585 Hydrology & Water Resources
590 Oceanography
595 Marine Sciences
599 Misc. Physical Sci., Other*

PSYCHOLOGY

600 Clinical
603 Cognitive & Psycholinguistics
606 Comparative
609 Counseling
612 Developmental & Child
615 Experimental
618 Educational (See also 822)
620 Family & Marriage Counseling
621 Industrial & Organizational (See also 935)
624 Personality
627 Physiological/Psychobiology
630 Psychometrics
633 Quantitative
636 School (See also 825)
639 Social
648 Psychology, General
649 Psychology, Other*

SOCIAL SCIENCES

650 Anthropology
652 Area Studies
658 Criminology
662 Demography/Population Studies
666 Economics
668 Econometrics
670 Geography
672 Human/Individ. & Family Devlpmt.
674 Int'l Relations/Affairs
678 Political Sci. & Government
682 Public Policy Analysis
686 Sociology
690 Statistics (See also 450)
694 Urban Affairs/Studies
698 Social Sciences, General
699 Social Sciences, Other*

HUMANITIES

History

700 History, American
703 History, Asian
705 History, European
710 History/Phil. of Sci. & Tech.
718 History, General
719 History, Other*

Letters

720 Classics
723 Comparative Literature
729 Linguistics
732 Literature, American
733 Literature, English
734 English Language
736 Speech & Rhetorical Studies
738 Letters, General
739 Letters, Other*

Foreign Languages and Literature

740 French
743 German
746 Italian
749 Spanish
752 Russian
755 Slavic (other than Russian)
758 Chinese
762 Japanese
765 Hebrew
768 Arabic
769 Other Lang. & Lit.*

Other Humanities

770 American Studies
773 Archeology
776 Art History/Cnt./Conserv.
780 Music
785 Philosophy (See also 440)
790 Religion (See also 984)
795 Drama/Theater Arts
798 Humanities, General
799 Humanities, Other*

EDUCATION

800 Curriculum & Instruction
805 Educational Admin. & Supervision
807 Educational Leadership
810 Educ./Instruct. Media Design
815 Educ. Stat./Research Methods
820 Educ. Assess./Test./Meas.
822 Educational Psychology (See also 618)
825 School Psychology (See also 636)
830 Social/Phil. Found. of Educ.
835 Special Education
840 Counseling Educ./Couns. & Guidance Services
845 Higher Ed./Eval. & Research

Teacher Education

850 Pre-elem./Early Childhood
852 Elementary
856 Secondary
858 Adult & Continuing

Teaching Fields

860 Agricultural Education
861 Art Education
862 Business Education
864 English Education
866 Foreign Languages Education
868 Health Education
870 Home Economics Education
872 Tech. & Indust. Arts Education
874 Mathematics Education
876 Music Education
878 Nursing Education
880 Physical Education & Coaching
882 Reading Education
884 Science Education
885 Social Science Education
887 Technical Education
888 Trade & Industrial Education
889 Teacher Educ., Specific Acad. & Voc. Prog., Other*
898 Education, General
899 Education, Other*

PROFESSIONAL FIELDS

Business Management and Administrative Services

900 Accounting
905 Banking/Financ. Support Serv.
910 Business Admin. & Mgmt.
915 Business/Managerial Economics
916 International Business
917 Mgmt. Inf. Sys./Bus. Data Proc.
920 Marketing Mgmt. & Research
930 Operations Research (See also 363, 465)
935 Organiz. Behav. (See also 621)
938 Bus. Mgmt./Admin. Serv., Gen.
939 Bus. Mgmt./Admin. Serv., Other*

Communications

940 Communications Research
947 Mass Communications
957 Communication Theory
958 Communications, General
959 Communications, Other* (See also 736)

Other Professional Fields

960 Architec. Environ. Design
964 Home Economics
968 Law
972 Library Science
974 Parks/Rec./Leisure/Fitness
976 Public Administration
980 Social Work
984 Theol./Relig. Ed. (See also 790)
988 Professional Fields, General
989 Professional Fields, Other*

999 OTHER FIELDS*

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The appendix tables present data according to the following field classifications. Appendix Tables A-1 and A-2 and Appendix Table B-1 display all subfields that are on the survey Specialties List. Appendix Tables A-4, A-5, and A-6 show data by seven broad fields only. Appendix Tables A-3 and A-7 include the additional field groupings indicated below.

SCIENCES

Physical Sciences (400-599)
- Physics and Astronomy (500-505, 560-579)
- Chemistry (520-539)
- Earth, Atmospheric, and Marine Sciences (510-519, 540-559, 580-599)
- Mathematics (420-499)
- Computer Sciences (400-410)

} Combined in Table A-7

Engineering (300-399)

Life Sciences (000-299)
- Biological Sciences (100-199)
  - Biochemistry (100)
  - Other Biological Sciences (103-199)
- Health Sciences (200-299)
- Agricultural Sciences (000-099)

Social Sciences (600-699)
- Psychology (600-649)
- Economics and Econometrics (666, 668)
- Anthropology and Sociology (650, 686)
- Political Science and International Relations (674, 678)
- Other Social Sciences (652-662, 670, 672, 682, 690-699)

} Combined in Table A-7

NONSCIENCES

Humanities (700-799)
- History (700-719)
- English and American Language and Literature (732-734)
- Foreign Languages and Literature (740-769)
- Other Humanities (720-729, 736-739, 770-799)

} Combined in Table A-7

Education (800-899)

Professional and Other Fields (900-999)
- Business and Management (900-939)
- Other Professional Fields (940-989)
- Other Fields (999)

NOTE: Doctorate recipients indicate their fields of specialty. Their choices may differ from departmental names.

TITLES OF RESEARCH DEGREES INCLUDED IN THE SURVEY OF EARNED DOCTORATES

DA/DAT	**Doctor of Arts/Arts in Teaching**	**DMM**	**Doctor of Music Ministry**
DArch	**Doctor of Architecture**	**DMSc**	**Doctor of Medical Science**
DAS	**Doctor of Applied Science**	**DNSc**	**Doctor of Nursing Science**
DBA	**Doctor of Business Administration**	**DPA**	**Doctor of Public Administration**
DChem	**Doctor of Chemistry**	**DPE**	**Doctor of Physical Education**
DCJ	**Doctor of Criminal Justice**	**DPH**	**Doctor of Public Health**
DCL	**Doctor of Comparative Law/Civil Law**	**DPS**	**Doctor of Professional Studies**
DCrim	**Doctor of Criminology**	**DrDES**	**Doctor of Design**
DED	**Doctor of Environmental Design**	**DRE**	**Doctor of Religious Education**
DEng	**Doctor of Engineering**	**DRec/DR**	**Doctor of Recreation**
DEnv	**Doctor of Environment**	**DSc/ScD**	**Doctor of Science**
DESc/ScDE	**Doctor of Engineering Science**	**DScD**	**Doctor of Science in Dentistry**
DF	**Doctor of Forestry**	**DScH**	**Doctor of Science and Hygiene**
DFA	**Doctor of Fine Arts**	**DScVM**	**Doctor of Science in Veterinary Medicine**
DGS	**Doctor of Geological Science**	**DSM**	**Doctor of Sacred Music**
DHL	**Doctor of Hebrew Literature/Letters**	**DSSc**	**Doctor of Social Science**
DHS	**Doctor of Health and Safety**	**DSW**	**Doctor of Social Work**
DHS	**Doctor of Hebrew Studies**	**EdD**	**Doctor of Education**
DIT	**Doctor of Industrial Technology**	**JCD**	**Doctor of Canon Law**
DLS	**Doctor of Library Science**	**JSD**	**Doctor of Juristic Science**
DM	**Doctor of Music**	**LScD**	**Doctor of Science of Law**
DMA	**Doctor of Musical Arts**	**PhD**	**Doctor of Philosophy**
DME	**Doctor of Musical Education**	**RhD**	**Doctor of Rehabilitation**
DMin/DM	**Doctor of Ministry**	**SJD**	**Doctor of Juridical Science**
DMiss	**Doctor of Missiology**	**STD**	**Doctor of Sacred Theology**
DML	**Doctor of Modern Languages**	**ThD**	**Doctor of Theology**

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